An Engineer's Guide to Influencing Public Policy

Course No: B02-002

Credit: 2 PDH

J. Paul Guyer, P.E., R.A., Fellow ASCE, Fellow AEI

Continuing Education and Development, Inc.
22 Stonewall Court
Woodcliff Lake, NJ 07677

P: (877) 322-5800
info@cedengineering.com

An Engineer's Guide to Influencing Public Policy

Guyer Partners
44240 Clubhouse Drive
El Macero, CA 95618
(530)7758-6637
jpguyer@pacbell.net

J. Paul Guyer, P.E., R.A.

Paul Guyer is a registered civil engineer, mechanical engineer, fire protection engineer, and architect with over 35 years experience in the design of buildings and related infrastructure. For an additional 9 years he was a senior-level advisor to the California Legislature. He is a graduate of Stanford University and has held numerous national, state and local positions with the American Society of Civil Engineers and National Society of Professional Engineers.

This course is adapted from the *Unified Facilities Criteria* of the United States government, which is in the public domain, has unlimited distribution and is not copyrighted.

An Engineer's Guide to Influencing Public Policy

J. Paul Guyer, P.E., R.A., Fellow ASCE, Fellow AEI

Overview

This is a tale told by an Engineer who ventured into a land seldom visited by his kind. Specifically, the *Land of Public Policy*. It is a story filled with high hope, confusion, disillusionment, frustration, anger, a creeping realization of how this strange new world really works and, finally, an understanding of some strategies and techniques that those of his ilk might think about should they like to participate in the *public-policy-making* process. But I digress….

First, let me tell you about the Engineer. He has had a career of about 45 years, over 35 of which were as a straight-ahead designer of infrastructure projects ranging from very large to small. He is a registered Mechanical Engineer, Civil Engineer, Fire Protection Engineer and Architect.

But that is only part of the story. The Engineer was born and raised in a center of government second only to Washington, D.C. in the United States. Born and raised in the Capital of the largest state in the U.S., he grew up in a neighborhood where down the street lived a state Legislator, a U.S. Senator and a high level state political appointee. Across the street lived the son of the Chief Justice of the U.S. Supreme Court. One of the highlights of the Christmas season was when the Chief Justice….a former Governor of the State….came home for the holidays to go duck hunting with his son and the City Manager. In short, "politics" was part of the Engineer's "DNA."

Moving on….the Engineer got out of college….and his DNA kicked in. He gravitated toward "recreational" politics. In addition to his day-job as an Engineer….he became active on the State level in the governmental affairs programs of two of the largest engineering societies in the United States, as well as a statewide business-oriented organization. He was occasionally active in partisan political campaigns, and was a partner in a small lobbying firm for a short time.

After about 35 years in engineering and engaging in recreational politics, he had the opportunity to do something he had wanted to do since he was a kid. He was offered a senior position on the staff of the largest State Legislature in the country. And here is where things got interesting. His job for almost nine years was to provide non-partisan analysis of public policy issues and make recommendations to the Members of the Legislature. He prepared reports, testified before Committees, provided one-on-one consultation to Members and their staff, and

negotiated compromises with agencies and lobbyists. In short, he had day-in-day-out exposure to public policymakers. And this is what he learned….

Learning Outcomes

Like football and golf, in the public policy arena you need to first learn the rules of the game, and then the techniques and strategies you will need to use in order to play the game effectively. These are the things you will learn from this course about the Public-Policy Game….

The Rules of the Game

You will learn about the fundamental difference between Engineers and Public Policy-Makers, and why it is critically important for you be aware of that difference if you want to influence public policy at the local, state or federal level. You will also learn that there is a hierarchy of people in the world, and you will learn where Engineers and Public Policy-Makers rank in that hierarchy. And finally, you will learn how these two fundamental concepts will lead you to the two words that govern every aspect of the public policy-making process.

How to Play the Game

You will learn about specific techniques and strategies you can use to play the Game and influence public policy at the local, state and federal level. And, perhaps surprisingly, a number of the techniques you will learn about can, with a little tweaking around the edges, be applied outside the public policy arena and be useful in your career and community activities.

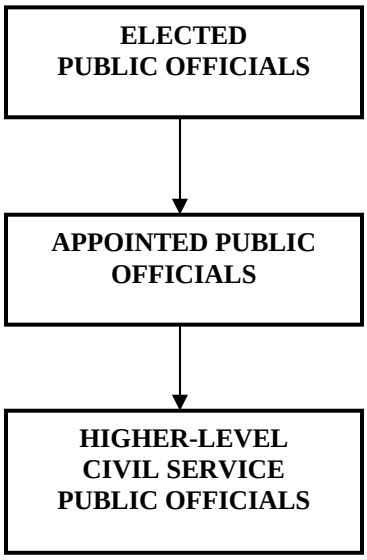
So….enjoy!

Intended Audience

This course is, of course, written from the perspective of an Engineer, but it will be helpful to others who fall into the same “linear thinkers” (more of this later) category. And some of the principles espoused will be just as useful without regard to the linear/non-linear thinkers chasm. That is because they are a reflection of human nature.

What Is a Public Policy Maker?

People who make public policy are of three types. They fall into a hierarchy based on the power they hold. At the top are elected public officials. Below them are public officials that are appointed to their positions by the elected public officials. And at the bottom of this hierarchy of public policy makers are higher-level civil service employees whose careers are controlled by appointed and elected public officials.



THE HIERARCHY OF PUBLIC POLICY MAKERS

This hierarchy exists at all three levels of government….local, state and federal. These are the people Engineers must influence if they hope to have any impact on public policy.

Overview of Legislative Processes

The processes by which federal, state and local laws, ordinances and regulations are enacted are conceptually similar although differ in a lot of details. Before we get started, let's take a look at how….theoretically….laws are enacted in a typical state and at the federal level. Keep in mind, however, that this is merely the framework within which policy makers typically operate. And as you review this material note the importance of "committees" and, reading between the lines, "committee chairmen." Committee chairmen are the key people Engineers or anyone else need to focus on if they are going to influence public policy.

A State Legislative Process

The process of government by which bills are considered and laws enacted by the State Legislature is commonly referred to as the legislative process. The State Legislature is made up of two houses: the Senate and the Assembly. There are 40 Senators and 80 Assembly Members representing the people of the State. The Legislature maintains a legislative calendar governing the introduction and processing of the legislative measures during its two-year regular session.

Idea

All legislation begins as an idea or concept. Ideas and concepts can come from a variety of sources. The process begins when a Senator or Assembly Member decides to author a bill.

The Author

A legislator sends the idea for the bill to the Office of the Legislative Counsel, where it is drafted into bill form. The draft of the bill is returned to the legislator for introduction. If the author is a Senator, the bill is introduced in the Senate. If the author is an Assembly Member, the bill is introduced in the Assembly.

First Reading/Introduction

A bill is introduced or read the first time when the bill number, the name of the author, and the descriptive title of the bill are read on the floor of the house. The bill is then sent to the Office of State Publishing. No bill except the Budget Bill may be acted upon until 30 days have passed from the date of its introduction.

Committee Hearings

After introduction, a bill goes to the rules committee of the house, where it is a assigned to the appropriate policy committee for its first hearing. Bills are assigned to policy committees

according to subject area. For example, a Senate bill dealing with health care facilities would first be assigned to the Senate Health and Human Services Committee for policy review. Bills that require the expenditure of funds must also be heard in the fiscal committees, Senate Appropriations and Assembly Appropriations. Each committee is made up of a specified number of Senators or Assembly Members. During the committee hearing the author presents the bill to the committee, and testimony may be heard in support or opposition to the bill. The committee then votes on whether to pass the bill out of committee, or that it be passed as amended. Bills may be amended several times. It takes a majority vote of the committee membership for a bill to be passed and sent to the next committee or to the floor. Each house maintains a schedule of legislative committee hearings. Prior to a bill's hearing, a bill analysis is prepared that explains the intended effect of the bill on current law, together with background information. Typically the analysis also lists organizations that support or oppose the bill.

Second and Third Reading

Bills passed by committees are read a second time on the floor in the house of origin and then assigned to third reading. Bill analyses are also prepared prior to third reading. When a bill is read the third time it is explained by the author, discussed by the Members, and voted on by a roll call vote. Bills that require an appropriation, or that take effect immediately, ordinarily require 27 votes in the Senate and 54 votes in the Assembly to be passed. Other bills generally require 21 votes in the Senate and 41 votes in the Assembly. If a bill is defeated, the Member may seek reconsideration and another vote.

Repeat Process in Other House

Once the bill has been approved by the house of origin it proceeds to the other house where the procedure described above is repeated.

Resolution of Differences

If a bill is amended in the second house, it must go back to the house of origin for concurrence, meaning agreement on those amendments. If the house of origin does not concur in those amendments, the bill is referred to a two-house conference committee to resolve the differences. Three members of the committee are from the Senate and three are from the Assembly. If a compromise is reached, the bill is returned to both houses for a vote.

Governor

If both houses approve a bill, it goes to the Governor. The Governor has three choices: sign the bill into law, allow it to become law without his or her signature, or veto it. A governor's veto can be overridden by a two-thirds vote in both houses. Most enacted bills go into effect on the first day of January of the next year. Urgency bills, and certain other measures, take effect immediately after they are enacted into law.

Law

Each bill that is passed by the Legislature and approved by the Governor is assigned a chapter number by the Secretary of State. These chaptered bills are statutes, and ordinarily become part of the State Codes. The State Codes are a comprehensive collection of laws grouped by subject matter. The State Constitution sets forth the fundamental laws by which the State is governed. All amendments to the State Constitution come about as a result of constitutional amendments approved by the voters at a statewide election.

The Federal Legislative Process

This discussion is focused on a bill originating in the House of Representatives. If a bill originates in the Senate the process is similar.

Beginning of a Bill

An idea for a bill may come from anybody, however only Members of Congress can introduce a bill in Congress. Bills can be introduced at any time the House is in session. There are four basic types of legislation: bills; joint resolutions; concurrent resolutions; and simple resolutions. A bill's type must be determined. A private bill affects a specific person or organization rather than the population at large. A public bill is one that affects the general public.

Proposal of a Bill

After the idea for a bill is developed and the text of the bill is written, a Member of Congress must officially introduce the bill in Congress by becoming the bill's sponsor. Representatives usually sponsor bills that are important to them and their constituents. Representatives who sponsor bills will try to gain support for them, in hopes that they will become laws. Two or more sponsors for the same bill are called co-sponsors.

Introduction of a Bill

Bills can be introduced whenever the House is in session. In the House, bills are officially introduced by placing them in a special box known as the *hopper*, which is located at the rostrum, or Speaker's platform. In the Senate, a bill is introduced by placing it on the presiding officer's desk or by formally introducing it on the Senate Floor. In the House, a bill clerk assigns the bill a number. House bills begin with "H.R." Resolutions begin with "H. Res.," "H. Con. Res.," or "H. J. Res," depending what type they are. Senate bills begin with "S." The first reading of a bill means the bill's title is read on the House Floor. The bill is then referred to a committee for markup.

Committee Action

The bill is referred to the appropriate committee. The 19 House standing committees and 16 Senate committees each have jurisdiction over different areas of public policy, such as

agriculture, education and the workforce, and international relations. The bill is placed on the committee's calendar. The committee debates on and marks up the proposed bill, and may or may not make changes to it. Committee members vote to accept or reject the changes made during the markup session. If a bill includes many amendments, the committee may decide to introduce a *"clean bill"* with a new number. The committee votes on the bill after it has been debated and/or amended. A committee may stop action, or "*table*" a bill it deems unwise or unnecessary. If the bill is not tabled, it will be sent either to a subcommittee for intensive study, or reported back to the House Floor.

Subcommittee Action

The bill is referred to a subcommittee, and placed on its calendar. The bill is carefully studied. The subcommittee may hold hearings to obtain the views of experts, supporters, and opponents. The bill is tabled when the subcommittee deems it unwise or unnecessary. If changes are needed, the subcommittee will meet to mark up the bill. Subcommittee members vote to accept or reject the changes. If the subcommittee accepts the bill, the bill is sent back to the full committee for approval or rejection.

The Bill is Reported

The bill is released from the committee, along with a report explaining the provisions of the bill, and is thus ordered *reported*. The reported bill is put on one of five House calendars, the Union Calendar and the House Calendar being the most commonly used. The bill is sent to the House Floor for consideration.

The Bill is Considered on the House Floor

A bill can come to the House Floor for consideration in a variety of ways. Many House bills are debated through a parliamentary device known as the Committee of the Whole, which is a mechanism that permits faster consideration. Floor action begins and Members debate the bill. The conduct of debate is dictated by the Rules of the House generally, and may also be governed by a special rule granted specifically for the bill under consideration. Following debate, the second reading of the bill begins in a section-by-section manner, during which amendments may be offered. At the conclusion of all amendment debate, the bill is read a third time. Next, the House is ready to vote on the bill.

The Bill is Put to a Vote

The bill is read by title only and put to a vote. Members in attendance will vote to pass or not to pass the bill. Members most often vote electronically in the House Chamber using the Electronic Voting System. Members of the Senate cast their votes by non-electronic means. Roll Call votes cast by the U.S. House of Representatives are recorded in the House Journal, the Congressional Record, and posted on the website of the Clerk of the House. Members may vote "Yea" for approval, "Nay" for disapproval, or "Present" to record that they were in attendance but

chose not to vote. If a majority of the House votes to pass the bill, the bill is then referred to the Senate to undergo a similar process of approval.

The Bill is Referred to the Senate

When a bill passes in the House, it must also pass in the Senate in order to become a law. The two houses of Congress make up the bicameral legislature, part of a system of checks and balances that ensures that laws are created democratically. Once the bill and its amendments has been officially passed by the House and certified by the Clerk, it is said to be "engrossed." In the Senate, the bill again may be sent to a committee for study or markup. Members may choose to ignore the bill and continue to work on their own legislation. Members may vote to pass or not to pass the bill. If the bill passes with different language, it must be sent for review to a conference committee, which is a committee made up of members from both the House and the Senate. Differences must be agreed upon before the bill is sent to the President for signature. At this point the bill is "enrolled."

The Bill is sent to the President

When a bill passes in the House and Senate and is sent to the President for a signature, it is said to be enrolled. The President can take one of several possible actions: The president may take no action. If Congress is in session, the bill automatically becomes law after ten days. A pocket veto occurs when the president takes no action and Congress has adjourned its session. In this case, the bill dies and does not become a law. The president may decide that the bill is unwise or unnecessary and veto the bill. The president may sign the bill, and the bill becomes law.

The Bill Becomes a Law

If the President signs the bill, or takes no action while Congress is in session, then the bill becomes a law. If Congress overrides a presidential veto, the bill becomes a law. New public and private laws are prepared and published by the Office of the Federal Register (OFR) of the National Archives and Records Administration (NARA).

The Bill is Vetoed

If the President decides a bill is unwise or unnecessary, the President does not sign the bill, but issues an official statement of objections to the bill called a *veto*. The President can veto a bill indirectly by withholding approval of the bill until Congress has adjourned *sine die*. This informal way of preventing a bill from becoming a law is called a pocket veto. When the President issues a veto, the bill returns to its House of origin. Objections to the veto are read and debated on the House Floor. If there are enough objections in the House to the presidential veto, a vote is taken to *override*, or overrule, the veto. If the House does not vote on a veto override, the bill is stalled and does not become a law.

The Veto is Overridden

If enough Members object to the presidential veto, a vote is taken to *override*, or overrule the veto. A two-thirds vote or greater is needed in both the House and the Senate to override the President's veto. If two-thirds of both houses of Congress vote successfully to override the veto, the bill becomes a law. If the House and Senate do not override the veto, the bill "dies" and does not become a law.

Why Public Policy-Makers are Different from You and Me

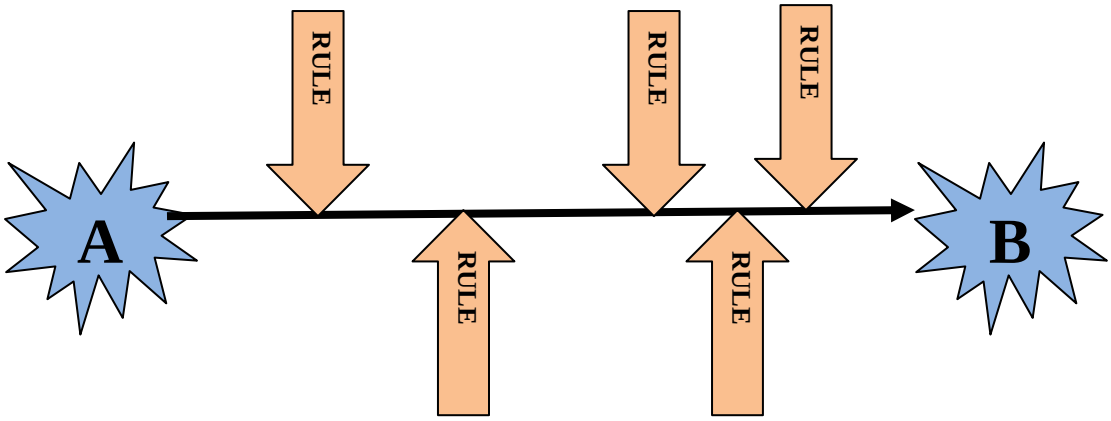
When I was involved in the state governmental affairs programs of two large engineering societies we approached public policy issues….like engineers. We addressed issues analytically and logically, just like we address engineering problems. We presented clear and cogent arguments to legislators and legislative staff. And we were universally ineffective. What was wrong? Didn't the legislators and staff we were talking to listen to what we were saying? Surely our logic and rationale could not be questioned. This was all so confusing.

This confusion persisted until I had the opportunity to work at a senior staff level for the state Legislature. Even then, in the beginning, I was confused. I analyzed public policy issues, framed them in a clear and concise manner in my reports and testimony, and again was largely ineffective in influencing the course of public-policy.

And then in the course of my ruminations I stumbled across the concept of "linear" and "non-linear" thinkers. And it fit like a glove. I was a linear thinker; public policy makers are non-linear thinkers. I was addressing legislators and their staff as a linear thinker, but they were listening (to the extent they listened at all) as non-linear thinkers. And that train is going nowhere. Here is the difference between the two.

Linear Thinkers

Linear thinkers are driven by rules. When presented with an issue, they apply universally accepted rules and reason logically to a conclusion that is driven by those rules. Engineers are classic examples of linear thinkers. We are trained in engineering schools in the irrefutable laws of applied physics and we learn to apply those laws to engineering problems in order to arrive at a correct solution. In engineering practice we are even more intensely driven by rules, in the form of numerous codes, regulations and best practices. Engineers are not the only examples of linear thinkers. Medical doctors, scientists and accountants are some of our fellow linear thinkers. Here is a picture of how a linear-thinker (read, engineer) gets from a problem (Point A) to a solution (Point B).

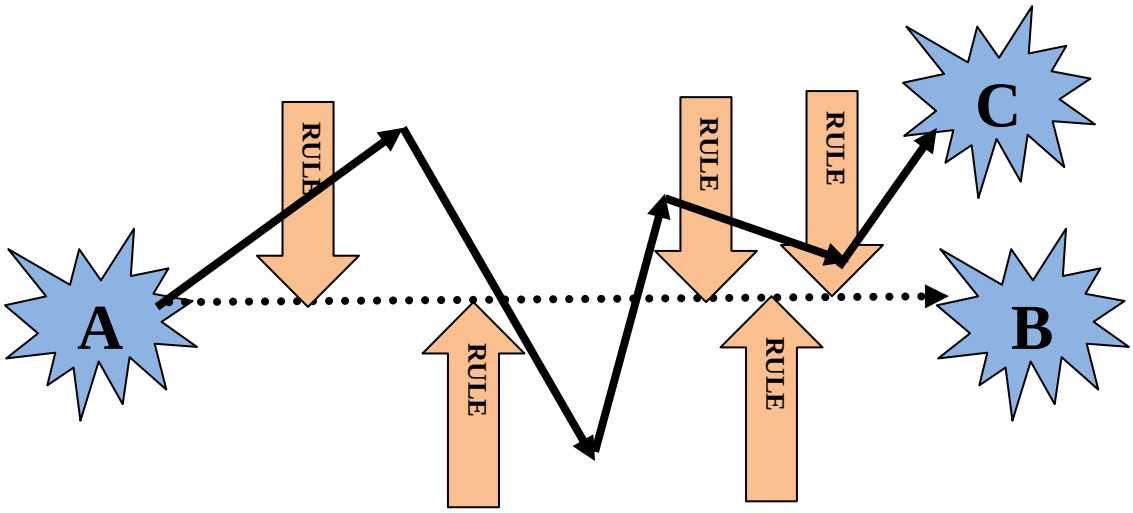


A LINEAR THINKER'S PATH FROM A TO B

A linear thinker arrives at Point B by logical application of rules, not because Point B is a pre-determined goal. But this is not how non-linear thinkers get from Point A to, perhaps…. Point B….or Point C or Point D, depending on which is his or her goal.

Non-Linear Thinkers

Non-linear thinkers are not concerned about rules. They are concerned about getting from "Point A to Point C." Point A is the situation with which they are currently confronted and Point C is where they want to be. They are "goal-oriented." For example, if a non-linear thinker is currently a clerk in the mail room of a large corporation (Point A) his goal may be to become Chief Executive Officer of that large corporation (Point C). His goal is not to design a big bridge (Point B). He wants to be Chief Executive Officer of that large corporation (Point C). Here is a picture of how a non-linear thinker gets from where he is now (Point A) to where he wants to be (Point C)



A NON-LINEAR THINKER'S PATH FROM A TO C

What Motivates Public Policy Makers?

Public policy makers….elected public officials, public officials appointed by elected public officials, and higher level civil servants whose careers are driven by appointed and elected officials….are classic non-linear thinkers. Other examples are salesmen, advertising executives, and restaurant managers.

Public policy makers are completely goal oriented. Their goal is either to (a) get re-elected/re-appointed to the office or position they now hold or, more likely, (b) to get elected/appointed to a higher office….a "higher" office being one of greater power, authority and prestige. Their "Point A" is their current position and their "Point C" is the position to which they aspire. And they will do whatever is necessary to move from A to C.

Why is this distinction important for engineers to understand when attempting to influence public policy makers? It is this:

DO NOT WASTE TIME TRYING TO INFLUENCE PUBLIC POLICY MAKERS WITH LOGICAL ARGUMENTS. INSTEAD, ATTEMPT TO FRAME THE ACTION YOU ARE ADVOCATING AS BEING ONE THAT WILL FACILITATE THE PUBLIC POLICY MAKER'S RE-ELECTION, RE-APPOINTMENT OR ELECTION/APPOINTMENT TO A HIGHER OFFICE.

The Hierarchy of People

Here is a maxim that I have found important in general, and particularly in the public policy arena:

THERE IS A HIERARCHY OF PEOPLE IN THE WORLD: AT THE BOTTOM ARE PEOPLE WHO CONTROL THINGS; IN THE MIDDLE ARE PEOPLE WHO CONTROL PEOPLE; AND AT THE TOP ARE PEOPLE WHO CONTROL MONEY.

Engineers in most cases control things and therefore are….regrettably…. usually at the bottom of the food chain. Public policy makers generally control people, and so are in the middle. But whoever controls money is at the top of the heap and will control the public policy makers. Why is this important?

Recognition of the concept of a hierarchy of people leads to an appreciation of the two most important words in formulation of public policy. These two words are: MONEY and POWER.

IF ENGINEERS ARE EVER TO HAVE THE POWER TO INFLUENCE PUBLIC POLICY MAKERS, THEY ARE GOING TO NEED TO HAVE A LOT OF MONEY TO SPEND.

In the public policy area Money and Power can be thought of as the same thing. Like mass and energy, they are just different phases of the same thing. Money confers Power, and Power confers Money.

Be Issue-Focused

I spent a lot of years involved with two major engineering societies in their efforts to influence public policy makers at the state level. The rationale I repeatedly heard from the leaders of these societies, in one form or another, was "We want to influence public policy in this state because of the unique perspective we, as engineers, can provide." This is a laudable sentiment, but it is meaningless in the context of influencing public policy. It is meaningless for two reasons: First, no engineer….or anyone else….will spend his or her hard earned money in support of such an objective. There is no potential for an individual engineer to receive something in return for money expended on a governmental affairs or lobbying program. It is a fundamental of human nature that people do not want to spend money unless there is a reasonable expectation that they will receive something of equal or greater value in return. And, second, public policy makers have no way to respond….even if they wanted to….to an engineering society's blandishments unless it relates to a specific legislative or regulatory proposal. So:

DON'T WASTE VALUABLE RESOURCES….MONEY AND PERSONPOWER….ON NEBULOUS EFFORTS TO HAVE ENGINEERING ORGANIZATIONS "INCREASE THEIR ROLE IN PUBLIC POLICY." FOCUS ON *SPECIFIC ISSUES*.

Find Issues and Positions That Can Be WINNERS

It sounds elementary, but do not waste valuable resources on lost causes. Keep in mind there are two reasons an issue or position is a lost cause. First, the members of your engineering organization are not interested in it because they see no potential for personal benefit to come from it and therefore will not support the effort financially; and, second, there will be opposition to your position by interest groups with far more power (read, money) than you have. Therefore….

FOCUS YOUR EFFORTS ON A LIMITED NUMBER OF *SPECIFIC ISSUES* THAT (A) WILL POTENTIALLY DELIVER REAL "MONEY IN THE POCKET" TO YOUR ORGANIZATION'S MEMBERS AND (B) WILL NOT FACE INSURMOUNTABLE OPPOSITION FROM INTEREST GROUPS WITH MORE POWER AND MONEY THAN YOU HAVE.

Establish Alliances

Engineers must establish alliances with other organizations active in the public policy arena having common objectives in order to pursue those interests. This is because engineering is not a sufficiently profitable enterprise for engineers that they can afford to go-it-alone. Money is Power.

Form Single-Issue Entities to Pursue Objectives

This may be difficult for conventional engineering organizations to accept, but they need to sublimate their organizational image to the pursuit of efficacy in the public policy arena. Public policy makers (the people who have the power to move the policy in which you are interested) do not want to hear about conflicts among interest groups (who, may I say, are their source of campaign funds). They want to hear that all of the interest groups want to go in the same direction (that is, "vote for the bill" or "vote against the bill"). Toward the objective of making it easy for public policy makers to "vote" the way you want them to vote….form "single-issue entities", i.e. "Americans for SB 349." *Americans for SB 349* ideally receives support from as many interest groups, including your engineering organization, as possible. Its component organizations are not "in the spotlight", but the issue is. That makes it easy for public policy makers to focus on the issue. All other things being equal, if a public policy maker sees all interest groups pushing in the same direction, he or she will almost always go in that direction. This is because it will (a) make no enemies and (b) it will make friends that will support his objective of advancing his political career. Yes, your engineering organization's logo will not be emblazoned on the news releases when SB 349 is passed, but ….it will have been passed.

Money Is the Root of All Politics

As one of the most notorious legislators in California once put it so eloquently "Money is the mother's milk of politics." Let's take a moment to look at how much is being spent at the federal and state levels to influence public policy. For example, this table…..

U.S. Chamber of Commerce	**$52.7 million**
General Electric	**23.7 "**
Pharmaceutical Research and Manufacturers	**22.7 "**
American Medical Association	**22.1 "**
American Hospital Association	**19.7 "**
AARP	**19.5 "**
AT&T	**17.1 "**
Exxon Mobil	**16.9 "**

shows the amount of money the top spenders expended on lobbying activities in 2007 at the federal level. The total amount reported as expended in 2007 on lobbying activities at the federal level by all entities was $2.8 billion (yes, that is a "b" as in billion).

How about lobbying at the state level (in 2005)? Well here is the picture in California which is, of course, a large state….

California Teachers Association	**$9.5 million**
AT&T and its affiliates	**4.1 "**
Western States Petroleum Association	**3.1 "**
California Chamber of Commerce	**2.6 "**
California State Council of Service Employees	**2.0 "**
Edison International and subsidiaries	**1.9 "**
BHP Billiton LNG International	**1.8 "**
California School Employees Association	**1.6 "**

Overall in California about $250 million is spent each year on lobbying in the Capital.

If one accepts the premise that money and power are miscible quantities in the public policy arena….and I hope that you do….how effective can a conventional engineering organization be faced with this level of "firepower?" Let's look at how the major national engineering societies are doing in investing in public policy advocacy. The most active society at the federal level is the American Society of Civil Engineers (ASCE) which spends about $2.8 million a year on "government and public affairs" in Washington, D.C…..how much goes to "government" and how much goes to "public" affairs is unclear. All that having been said, this seems logical, considering how much civil engineering work is federally funded. The National

Society of Professional Engineers (NSPE), being broadly based and without a significant federal funding focus, spends only about $300,000 a year on advocacy. The largest engineering society, the Institute of Electrical and Electronics Engineers (IEEE) spends nothing on governmental advocacy. The other major engineering societies (ASME, ASHRAE, etc.) also invest almost nothing in governmental advocacy at the federal level. These are very weak efforts compared to what other interest groups and companies expend routinely on federal lobbying activity. With total federal lobbying expenditures approaching $3 billion a year, and with about 16,000 lobbyists in Washington, D.C., engineers are not investing nearly enough to be effective in addressing federal public policy issues.

A look at governmental affairs activity at the state level reveals similarly weak efforts. In California, the largest state, ASCE, ASME, IEEE, NSPE and ASHRAE spend essentially nothing on governmental advocacy. It is instructive, however, to note where engineers are active in lobbying in Sacramento. One active entity is the American Council of Engineering Companies (ACEC) and the other is Professional Engineers in California Government (PECG). Both are focused interest groups….on opposite sides, as it happens, of the same issue….contracting out of state engineering work to private engineering firms. They each spend between $250,000 and $500,000 a year on lobbying, which is not a lot compared to what other interest groups expend lobbying in Sacramento, but it is the only money being expended by engineers in California to influence state public policy. This is an illustration of how entities focused on a single issue are used as vehicles for influencing public policy.

This leads me to the conclusion that….

ENGINEERING ORGANIZATIONS AS CURRENTLY STRUCTURED AND FUNDED CAN NEVER BE EFFECTIVE AT INFLUENCING PUBLIC POLICY UNLESS THEY ESTABLISH ALLIANCES WITH INTEREST GROUPS THAT HAVE FAR MORE RESOURCES (READ, MONEY) THAN THEY DO.

Where to Get It

The are only two places I know of where engineers can access the money they need to be credibly effective in influencing public policy. These are “alliance partners” and “bargaining units.”

Alliance Partners

Unless there arises a unifying "pocket-book" issue, I do not see engineers *ever* voluntarily being willing to commit even the slightest amount of their hard earned pay check to any engineering society or organization's governmental activities program. The only way I can see engineers ever being successful in influencing public policy is by alliance with well-heeled interest groups who share a specific public policy objective. What might a "unifying pocket-book issue" be? Well, pay, job security and working conditions is a good starting point for discussing this.

Bargaining Units

If engineers are going to get serious about generating enough money to be effective in influencing public policy they should recognize that collective bargaining units can be an effective mechanism for doing so. Engineers who are represented by a collective bargaining unit are compelled to pay for the support of the bargaining unit and that includes its governmental affairs activities. I know that "unionization" is an uncomfortable topic for discussion among engineers, but it needs to be recognized as an option. For example, in California the most effective public policy advocates are bargaining organizations that represent public employees.

There is an amusing and instructive case study on just this point. In California in the late 1970s/early 1980s the Legislature and the Governor's office were controlled by one political party that was heavily funded by labor unions. The result was the enactment of legislation that made it effectively mandatory for public agencies to engage in collective bargaining with public employees, and for public employees to be represented by labor unions in those bargaining activities.

Along with this, the Governor at that time….who was sometimes referred to as "Governor Moonbeam" because of his flakey policies….was a committed disciple of something called the "small is beautiful" philosophy, and he was in particular very anti-automobiles and anti-freeways. Upon election, he set about to dismantle the California Department of Transportation (CalTrans), which included laying-off large numbers of engineers and stifling career advancement opportunities and pay of the rest. *Ahhh*….a pocket-book issue.

Faced with this dollars-and-cents concern, engineers employed by CalTrans and elsewhere in State government bound together to form a focused interest group….Professional Engineers in California Government, mentioned above. Serendipitously, the Governor's delivering public employees into the hands of labor unions gave PECG the opportunity to become the "bargaining unit" (read, labor union) for engineers in State government. This meant that PECG benefitted not only from dues revenue that was willingly paid by a segment of State

engineers, but mandatory collective bargaining assessments that all State engineers were required to pay as a condition of their employment. The result was a focused interest group, PECG, representing 13,000 engineers and allied technical staff that vociferously opposed the Governor's efforts to dismantle CalTrans. And PECG was successfully in doing this. So the Governor's fealty to labor unions ended up thwarting his small-is-beautiful machinations.

Be careful what you ask for Governor….for you may get it.

Where to Invest It

Stop, take a deep breath, and review the two words that are the essence of influencing public policy: *Money* and *Power.* Thinking about this for a minute will, I hope, bring you to the realization that you should:

INVEST MONEY ONLY IN PUBLIC OFFICIALS WHO HAVE THE _POWER_ TO ACCOMPLISH YOUR PUBLIC POLICY OBJECTIVE.

I cannot tell you how many times during my years of governmental affairs activity with national engineering organizations in California that I have heard engineers say "We need to support (read, contribute money to) our local legislator." That is wrong….*unless* your local legislator is in a position of *power* that can be exercised effectively to achieve your public policy objective.

Let me draw a picture for you. I will use terminology based on California state government, but there is nothing unique to this state; it is equally applicable with appropriate modifications to any other state, or the federal government, or your local city council or agency. The Legislative Branch consists of two Houses. The Executive Branch is controlled by a Governor. To affect public policy, in this example….that is, to enact a bill into law, requires the assent of both Houses and the Governor.

First, a bill must be passed by both Houses. The power structure of a House looks like this: Each House has a Leader. A Member becomes the Leader by being elected to that position by the other Members. A Member who seeks to become Leader says to Members whose vote he needs:

> *"If you will vote for me, I (a) will contribute money from my campaign fund to your campaign fund to help you get re-elected and (b) if I am elected Leader I will appoint you Chairman of a Committee having power over all bills in your area of interest (i.e. transportation, gambling, protection of the tort bar etc.). As I am sure you know, Rules which I and my predecessor Leaders have*

enacted within this House provide that you, as Committee Chairman, control which bills are approved by your Committee, Unless I tell you that I elect to control the fate of a specific bill. The way you will be able to control which bills are approved is that you, as Chairman, according to the rules I and my predecessor Leaders of this House have established for the conduct of business in this House, determine which bills are allowed to be heard on the Committee Agenda. If a bill is not heard, it does not pass this House."

This means: The first person you need to get to agree to support your public policy initiative (a"bill") is the Chairman of the first Committee in the House in which the bill originates. If your "local Legislator" is not the Chairman of this Committee, do not waste money on your *local legislator*, because he has no power to do anything for you (barring a more nuanced personal relationship) because he can do nothing to support your objective (passage of a specific bill).

So it goes as your bill progresses from Committee to Committee, then to the other House, and then to the Governor. What does this mean? To repeat: Do not waste money on your "local legislator" unless he has the *power* to accomplish your public policy objective (pass your bill). This may sound harsh, but it is the way things work in the public policy area.

The Role of Policy Staff

What is "policy staff?" *Policy Staff* consists of appointed employees of a legislative or executive branch. Some are hired and fired by a "Leader" or "Governor", and others by individual elected "Members" of the Legislature. In all cases their fundamental responsibility is constant loyalty to the person who hired them and that person's political objectives. They are hired-and-fired at will and are constantly in fear of losing their jobs. They may attempt to cloak themselves in a raiment of policy expertise, but that is only an attempt to shield their vulnerability in the political environment.

Policy staff people may subtly suggest that they have some degree of power in the political process. This is true only in that they can make life difficult for you by trying to block-you-off-from-their-boss. Do not fall into the trap of thinking that by convincing a policy staff person (such as a "legislative assistant") of the merits of the action you are advocating that you will achieve success. You will not. On the other hand, if you "tick off" a staff person they can do damage to your cause, unless you have purchased the support of the Member, Leader or Governor who appointed them to their job. In short:

DO NOT WASTE TIME AND MONEY CURRYING THE FAVOR OF POLICY STAFF ("LEGISLATIVE ASSISTANTS" , "COMMITTEE CONSULTANTS", ETC.). THEY CAN NEVER PROVIDE YOU ANY MEANINGFUL SUPPORT IN PURSUING YOUR PUBLIC POLICY OBJECTIVE. THEY CAN ONLY AFFECT YOU BY THROWING ROAD BLOCKS IN YOUR WAY IF YOU ANNOY THEM. SO BE POLITE, BUT DO NOT OVER-EMPHASIZE THEIR IMPORTANCE.

Committee Hearings

Decisions Are Never Made in Public

Let me be perfectly clear….

PUBLIC POLICY DECISIONS ARE NOT MADE IN PUBLIC (I.E. IN "COMMITTEE HEARINGS"). THEY ARE *ALWAYS* MADE IN PRIVATE, AND THERE ARE NEVER ANY FINGERPRINTS LEFT BEHIND TO REVEAL WHO DID WHAT.

Do not think that by showing up for a committee hearing that you are going to influence action on your policy issue. The direction of the policy issue in which you are interested is going to be determined outside of the hearing room. There is an old saying in California: There are two things you should never watch being made: Sausage and laws in the California Legislature.

But You Still Have to Keep Up the Pretense

That having been said, as a public policy advocate you still need to "put on a good show." You need to go through the motions and play along with the illusion that the making of public policy is done with transparency in public hearings. If you do not, you will make enemies among the public policy makers you are trying to influence….and that is not healthy for your cause.

Putting On a Good Show

So here are some tips on how to put on a good show. This discussion is focused on public forums such a committee hearings, but the concepts suggested here are equally valid in small group or one-on-one encounters with public policy makers.

Attention Span

Public policy makers….non-linear thinkers….have a maximum attention span of 15 minutes. I have encountered quite a few who could not stay focused for 5 minutes. In a committee hearing, small group or one-on-one meeting, do not talk for more than 15 minutes. The shorter the better. Remember, the decision on what to do with your bill, or whatever you are attempting to influence, has usually been made before anyone entered the hearing room. It may be made after the hearing, but that is usually because the person who has the *power* to make the decision (like the Chairman) did not show up for the hearing.

Emotional, Not Logical, Presentations

In sharing with public policy makers, do not waste time making logical ("rule-driven") arguments. Public policy makers are non-linear thinkers. They care nothing about rules; they are driven by their personal goals. Your presentations should be emotional, not logical. For example:

> *You are endeavoring to convince a Chairman of a Legislative Committee to use his power to see that his Committee votes to approve a bill to increase the pay of Engineers employed by the state University. Do not use logical arguments such as: "Engineers employed by the state University earn 30% less than Engineers employed elsewhere, and the University is losing all of its Engineers because they want to earn more money elsewhere. That being the case, the University cannot get its capital outlay projects constructed." No: Do not use that logical argument; instead, use an emotional argument that will appeal to the Chairman of the Legislative Committee (who is the one who has the Power to achieve your public policy objective, i.e. approval of the bill). Your argument should be emotional and should go something like this: "Mr. Chairman and Members, approval of this bill is needed in order to assure that every high school graduate in your District receives a state University diploma. Approval of this bill means that all of the voters and children of voters in your District will have a great life. Approval of this bill means socio-economic-racial discrimination will forever be banished in your District. Approval of this bill means that the voters in your District will get more money and people outside your District will be paying to support voters in your District. Approval of this bill means all of the children of the voters in your Districts will receive a state University education and will have the opportunity to achieve wealth, for which they will be devoted to you and your re-election and political career going forward."*

Now the example I have shared above is a bit of a parody but the point is important: Public policy makers (non-linear thinkers) are influenced by emotional….not logical….arguments.

The Role of Handouts

Oddly enough, there is something I have found to be reasonably effective in some situations when undertaking to influence public policy makers. This is…."Handouts."

A Handout is one or more pieces of paper which contain synopses of your arguments using simplified text and graphics (the more graphics, the better). These can be very useful; they are not determinative in the argument of an issue but they can tip-the-scales-in-your-favor. There are two reasons handouts are useful: First, in a Committee Hearing a Member will rarely be listening to what you are saying for more than a few minutes at best but it has been my observation that they often will spend time ruminating over an attractive, simplistic handout while you are talking. Or they may take it away from the hearing and look at it back in their office. Or if they see something that might assist in furthering their political objectives (getting re-elected), they may give the handout to a legislative aide with directions to "incorporate this into a speech" or "put out a news release on this." Handouts can be helpful in one-on-one meetings for the same reasons.

ATTRACTIVE, EASY TO UNDERSTAND, HANDOUTS CAN BE HELPFUL WHEN MAKING PRESENTATIONS IN COMMITTEE HEARINGS AND ONE-ON-ONE PRESENTATIONS. THEY WILL NOT WIN YOUR CASE, BUT THEY MAY BE SOMEWHAT HELPFUL IN GETTING YOUR AUDIENCE TO PAY ATTENTION..

The Bottom Line

What I have had to say about Engineers' prospects for influencing public policy may have sounded a little pessimistic….and that has been intentional. That is not, however, to say that engineers and engineering societies and organizations should abandon hope of having their voices heard. On the contrary I would want to encourage engineers to address public policy issues….but to do so with a realistic perspective. These are the things I believe engineers should keep in mind when endeavoring to influence public policy at the local, state and national levels….

- **Understand the difference between linear and non-linear thinkers. You are a linear thinker. Public policy makers are non-linear thinkers.**
- **Public policy makers are motivated almost exclusively by their political objective, which is either to get re-elected/re-appointed or to get elected/appointed to a higher office.**
- **The two most important words in the public policy arena are "money" and "power."**
- **It is essentially impossible to influence public policy in a meaningful way without having a lot of *money* to spend.**
- **Spend your money only on those public policy makers (legislators, etc.) who have the political *power* to achieve your objective. Spending it on others is a waste of money.**
- **Public policy staff can make life difficult for you, but they cannot in the final analysis achieve your public policy goal. Be polite, but do not waste a lot of time and money on them.**
- **Public policy is *never* made in public. Decisions are always made outside of public venues such as committee hearings.**
- **When attempting to convince a public policy maker use *emotional* not *logical* arguments.**