THE PATH TO PRODUCTIVITY:
THE FEDERAL RELATIONS PROCESS

Dr. Sue Peterson and Dr. Jim Guikema

October 23, 2013

A discussion with faculty members within the College of Engineering at the request of the College Leadership
1. If this is the only pathway, our careers are likely over.

2. The Congressionally-directed funding events, called earmarks, are stalled during the past several years.

3. It is still essential to get the top University priorities into the arms of our professional advocates in Congress.

4. Therefore, the current Federal Relations Committee continues its work.
The process begins with the faculty members.

Ideas; ideas; ideas; successes; successes.

The best ideas are the most comprehensive, and may cross departmental, college, and disciplinary lines. The best ideas certainly cross U.S. Agency lines.
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Kansas Congressional Delegation and their Committee assignments

Senator Pat Roberts
Agriculture, Nutrition, and Forestry
Finance
Health, Education, Labor and Pensions
Rules and Administration
Select Ethics

Senator Jerry Moran
Appropriations
Banking, Housing & Urban Affairs
Veterans’ Affair
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Kansas Congressional Delegation and their Committee assignments

Representative Tim Huelskamp
Small Business
Veterans’ Affairs

Representative Lynn Jenkins
Ways and Means

Representative Mike Pompeo
Energy and Commerce
Select Intelligence

Representative Kevin Yoder
Appropriations

KANSAS STATE UNIVERSITY
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Step 2: The discussion

The process continues with a dialog.

Ideas; ideas; ideas; successes; successes; and convincing the departmental leadership.

The best ideas are the most comprehensive, and the discussion may be in parallel between departmental leadership teams.
Step 3: The construction

The process continues with a discussion with the dean.

Ideas; ideas; ideas; successes; successes, and convincing the college leadership.

The best ideas are concisely presented in a 1 page white paper.
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Step 4: The submission

The 1 page white paper.

- Convincing title
- Background
- Description
- Relevance National/Regional

[old rules – funds requested]

Large-Scale Integration of Renewable Generation in the Power Grid

Background
The total wind power capacity has increased worldwide from 17.4 GW in 2000 to 238 GW in 2011, while the US share was 47 GW in 2011. Similarly, solar generation has been increasing but at a slower pace. Many technical aspects of wind and solar generation are still under investigation to achieve the federal grand challenge of 50% of the total electricity generation from renewable resources. Uncertain and intermittent nature of wind and generation is the biggest bottleneck in increasing its share in the generation portfolio. This bottleneck impedes planners’ ability to account for capacity available from renewable resources and hinders operators’ ability to respond to rapid fluctuations in generation. Stochastic modeling could be used to aid integrated planning and optimize operation and control to fully exploit the potential of renewable energy for generation of electricity.

facilities while accounting for cost as well as emissions, and system stability and reliability. Optimization of all these variables is important to manage costs and maximize renewable energy use. Power electronics devices play key roles in renewable generation units because they are employed as the interface devices between them and the power grid. These inverters should be able to reconfigure quickly to adjust to changing system conditions arising from sudden fluctuations in renewable generation.

Since large-scale integration of renewable generation would make operation of power systems very complex, several aspects of cyber-physical modeling and intelligent approaches are needed to control various devices in the system. The system needs sensing of different critical quantities, a communication network to convey this information, a cyber system, and algorithms to process the information and make decisions. Filtering and
Step 4: The submission

The 1 page white paper.

Relevance National/Regional
The US Federal government has had promotion of renewable generation a top priority for many years to reduce dependence on foreign oil and to reduce carbon emissions. President Obama in his inauguration address renewed his commitment to renewable energy and emission reductions. Several states have adopted renewable portfolio targets as part of their state policy. Similarly, targets have been set for clean air. Kansas has abundance of wind energy and significant potential for solar energy. By focusing on research targeted at improving the utilization of existing renewable resources and promoting integration of additional renewable resources in the power grid Kansas State University, with its significant strength on the topic, can contribute substantially to the federal grand challenge of generating 50% of electrical energy from renewable resources.

Agency Contact Information
U.S. Dept. of Energy

E-mail: energyinfo@go.doe.gov
303-275-4808
Step 5: The Committee

By University priorities

By appropriations bills
By University priorities

AND by committee assignments

A bi-yearly turnover in Committee assignments for our Congressional Staffers

Our knowledge of the Committee staffers also changes.
Step 5: The Committee

Sue’s Rules:

- Why should Washington care?
- Why should they fund you at a time when children’s health is at risk?
- Communicate with your College leadership (early is better)
- We provide the one-page template – you provide the convincing argument
- The Dean is your advocate when we visit Washington
Step 5: The Committee

Jim’s Rules:

• Communicate with your leadership (early is better)
• There is life after federal earmarks
• You have a good idea, VISIT US to help find a funding home
• Interdisciplinary rules apply – the broader the better
The Federal Relations Committee has set the following criteria for projects to be considered in the 2014 Kansas State University Federal Expression of Strength Document:

- Must be a documented University, College, Department or Unit Priority
- Must be able to demonstrate a relationship to K-State 2025
- Must include federal agency contact information
Step 5: The Committee

Jim’s Rules:

• Extramurally funded awards to Kansas State University totaled about $1.191 billion during the ten year time frame from FY03 – FY12. Ask about the College’s share of these.

• There is life after federal earmarks

• You have a good idea, VISIT US to help find a funding home

• Interdisciplinary rules apply – the broader the better
### THE PATH TO PRODUCTIVITY:

#### THE FEDERAL RELATIONS PROCESS

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<th>Source</th>
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<th>% of total dollars received</th>
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Governmental Relations website includes:

- Instructions
- Page layout template
- 2013 Book
- 2014 Master timeline
Questions?

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