Governing Green Power II

How should utilities of the future make money?

University of Hawai'i at Mānoa
Innovation Laboratory -- iLab (directions and map)

AGENDA

Growth of renewable energy, reduced economies of scale, rapidly falling storage costs, network communication technologies, plus customer self-generation, load shifting and efficiency options, all have the potential to dramatically change the nature of electricity systems. Underlying this is the eroding viability of incumbent regulatory models that govern utility revenue and profit.

Key issues that this conference will address:

- Profit of investor-owned utilities is typically tied to rate of return on capital investments, which sets the wrong incentive for utilities to promote less capital-intensive ways of integrating renewables, such as demand response.
- Current volumetric (i.e., per kWh) rates and demand charges do not reflect underlying marginal costs, creating inefficiencies that will become more severe as renewable penetration grows.
- As renewables and storage grow, fixed costs will increasingly replace fuel costs, making marginal costs more variable and more difficult to determine.
- A potentially large shortfall in revenue from efficient volumetric pricing in covering all fixed costs.
- Alternative ways of covering fixed costs not covered by efficient volumetric pricing.

Thursday April 12

Session 1. **Welcome.**

11:00 Welcome & motivation for the conference. Dick Pratt, Professor Emeritus & Governing Green Power Initiative.

11:15 Introductory comments by Richard Sedano, President and CEO of the Regulatory Assistance Project.

11:30 Brief introductions by all participants.

11:45 Lunch in the iLab. *What do you do and why?*

Session 2. **Background presentations.**

1:00 Current regulatory structures and the legal precedents guiding them: Carl Freedman, Consultant and member Governing Green Power Initiative.
20 min presentation, 25 minute discussion and Q&A

1:45 Natural monopoly regulation confronts renewable energy and distributed resources: Michael Roberts, UH Mānoa and Governing Green Power Initiative.
20 min presentation, 25 minute discussion and Q&A

2:30 – 3:00 Break & Discussion: *How optimistic are you about* _____ ?

3:00 – 3:45 Variable pricing and the social cost of renewable energy: Matthias Fripp, UH Mānoa and Governing Green Power Initiative
20 min presentation, 25 minute discussion and Q&A

3:45 – 4:30 Facilitated small group discussion: What in your opinion is the biggest challenge with meeting our renewable energy goals, and how can we overcome it?

5 – 7:30 Dinner and Keynote presentation by Richard Sedano,
How renewable energy and other technologies are affecting regulation around the world. (East-West Center, Imin Center)

Friday April 13.

Session 3 **Alternatives to conventional cost-of-service regulation.**

9:00 – 9:30 The case for an alternative, and three alternatives to motivate discussion:

1. Performance Based Regulation (PBR): Adding new performance-based metrics to the utility's allowed revenue.
   PBR metrics might include:
   a. Gross quantity of electricity delivered and consumed
   b. Reductions in pollution emissions
   c. Greater stability
   d. Lower overall costs
2. PBR + lower rate-of-return on capital: More weight on PBR.
3. Pure PBR: same projected revenue if target metrics are achieved.

It is clear that some alternatives to cost-of-service regulation involve a change in ownership from the current investor-owned utility. Such a change might involve government-operated municipality, a cooperative, or an independent service operator that manages the system but owns little capital itself. These might be viable and desirable changes over the long run. Regardless of whether such changes are contemplated, we believe there are important

opportunities in the near term that could be better exploited if the utility's current incentives were reconsidered.

9:30 - 10:30 Facilitated discussion groups — Sharing views on alternative regulatory structures with goal of clarifying areas of agreement and disagreement.

10:30 - 10:45 Plenary in which each group shares views with all other groups.

10:45 – 11:15 Group facilitators meet to pull together points of agreement and disagreement from across the discussion groups. Other participants are on break.

11:15 – 11:45 Plenary session with reactions to report from facilitators and general feedback.

12:00 – 1:15 Lunch

<u>Session 4</u> **Rate design in a high-renewable, low-marginal-cost future**

1:30 – 2:00 Two views on rate design: Michael Roberts & Rich Sedano:
Do we have a problem?
If so, how big is it?
What are good responses?

2:00 – 3:00 Facilitated discussion groups—Sharing views on alternative rate designs with goal of clarifying areas of agreement and disagreement.

3:00 – 3:15 Plenary in which each group shares views with all other groups.

3:15 – 3:45 Group facilitators meet to pull together points of agreement and disagreement from across all discussion groups. Other participants are on break.

3:45 – 4:15 Plenary session with reactions to report from facilitators and general feedback.

4:15 – 4:45 Concluding statements and next steps.

4:45 Pau Hana – Sustainability Courtyard near iLab.