

SB978 INITIAL STAKEHOLDER MEETING

JAN 30 '18 @ OREGON PUBLIC UTILITY COMMISSION

Senate Bill 978

SECTION 1. (1) The Public Utility Commission shall establish a public process for the purpose of investigating how developing industry trends, technologies and policy drivers in the electricity sector might impact the existing regulatory system and incentives currently employed by the commission. If warranted, the commission may consider changes to the existing regulatory system and incentives.



Lisa Hardie
OPUC CHAIR

BRING CONSTRUCTIVE THOUGHTS.
LET'S HAVE SOMETHING MEANINGFUL
TO REPORT TO THE LEGISLATURE.



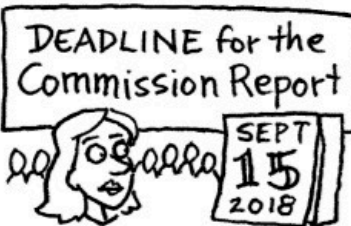
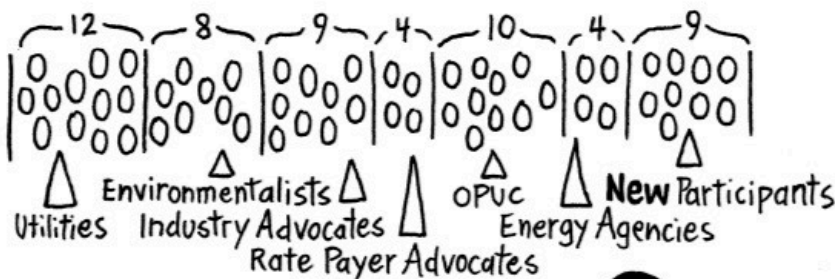
Megan Decker
Commissioner

Engage with
optimism.

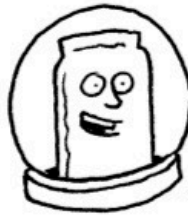
We want you to be engaged
both orally and in writing.



Finally - I expect
a roadmap.



ICEBREAKERS
WHAT TYPE OF CANDY
ARE YOU? AND WHY?



I'M A MARS
BAR because
I'm out of
this world!

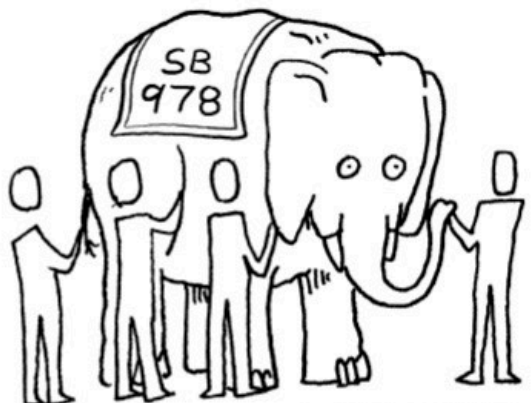
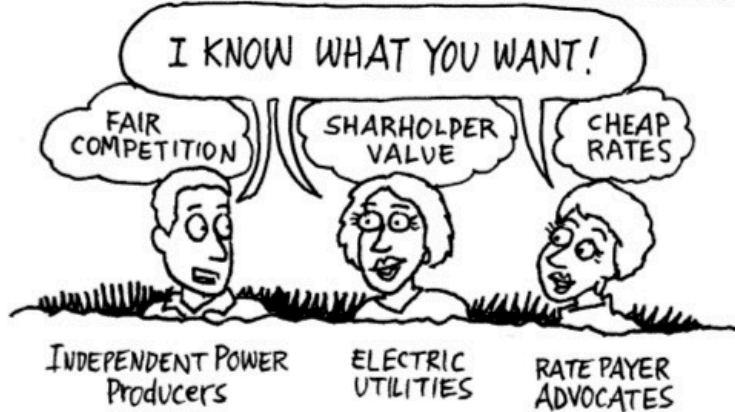
I'M NOT A
SUCKER.

JUST
CHEWY IN
THE MIDDLE.



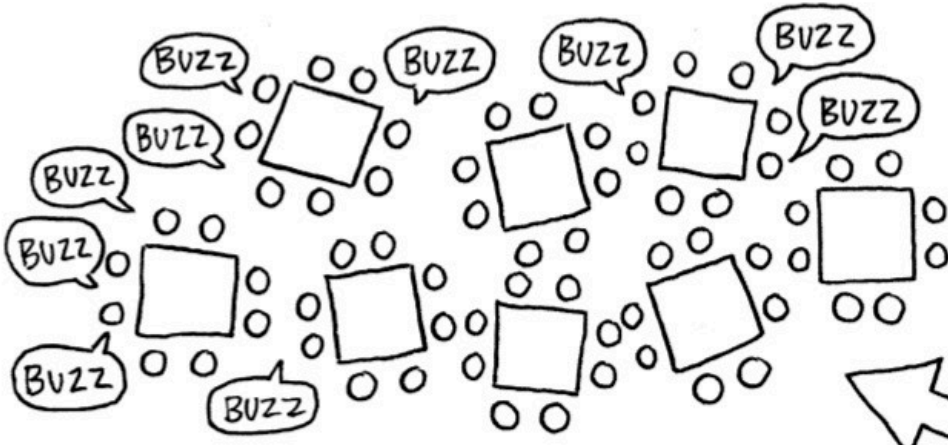
Bowls on tables.

BREAK OUT FROM ENTRENCHMENT



SHARING PERSPECTIVE

TALK IN THE SAME LANGUAGE. USE THE SAME TERMS
WHAT DO YOU MEAN BY CUSTOMER?



DISCOMBOBULATE
ATTENDEES WITH
JUMBLED SEATING
MIXING ENTRENCHED
WITH **NEW**
PARTICIPANTS

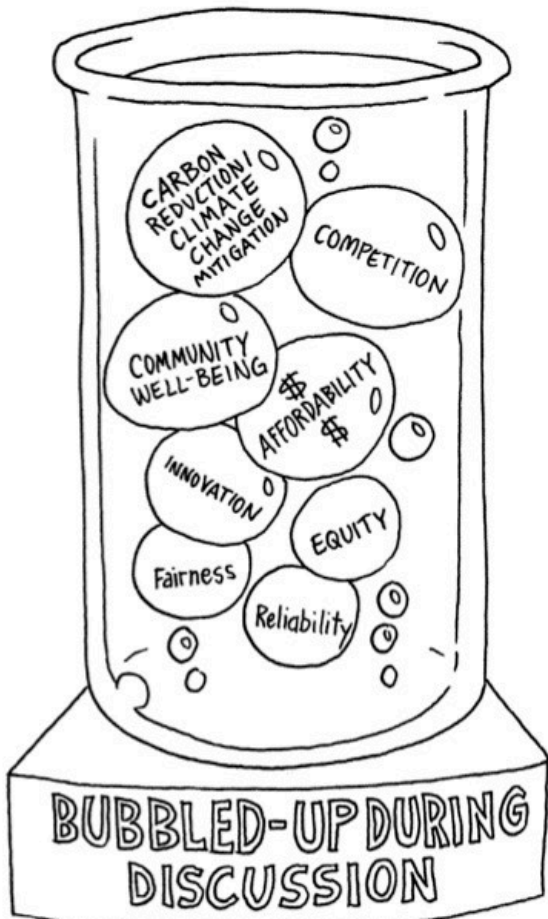
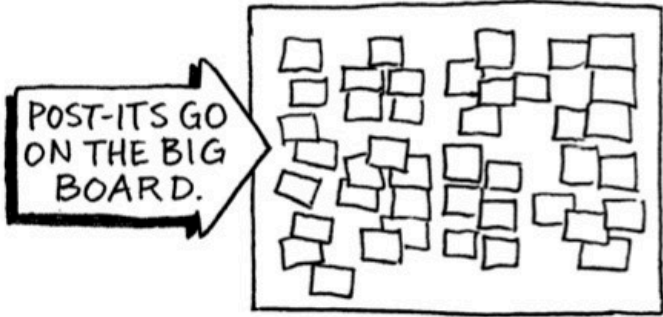


SOME GROUPS STRUCTURED THEIR RESPONSE

GOALS VS. PRIORITIES

- TRADE OFFS
- BOUNDARIES
- TIMELINES
- COST

SOME GROUPS USED VOTING TO MAKE THEIR SELECTION and THAT created discussion.





How to integrate OPUC's work with OR goal of carbon-free power?

Meredith Connolly
Climate Solutions

BROAD CONSENSUS OCCURS IF DISCUSSED IN BROAD TERMS. **BUT** DIGGING DOWN INTO WORD MEANING BRINGS NEW CONSIDERATIONS TO THE DISCUSSION.



Angus Duncan
National Resources Defense Council

EVERYBODY HAS A DIFFERENT WAYS TO PROCESS INFORMATION AND TO ASSIGN DIFFERENT MEANINGS TO THE SAME WORDS.

We need to take hold and manage and adapt with changes.

And, SB978 fits into national trends. We must scope for Oregon and maintain core values while maximizing gains.



Megan Decker
Commissioner

What can regulated monopolies only do and what do we want them to do?



Irion Sanger
NIPPC

LET'S BRING BACK BLANK SLATE THINKING.



Alan Hickenbottom
consultant

What do customers want?

This process will evolve with a professional facilitator and Regulatory Assistance Project.



Julie Peacock
OPUC STAFF

WORDS MATTER

IOUs' don't have customers. They have captive customers instead.



Bob Kahn
NIPPC



POOR PEOPLE SHOULDN'T BE PAYING FOR THE CARBON FOOTPRINT
- Bob Jenks, CUB

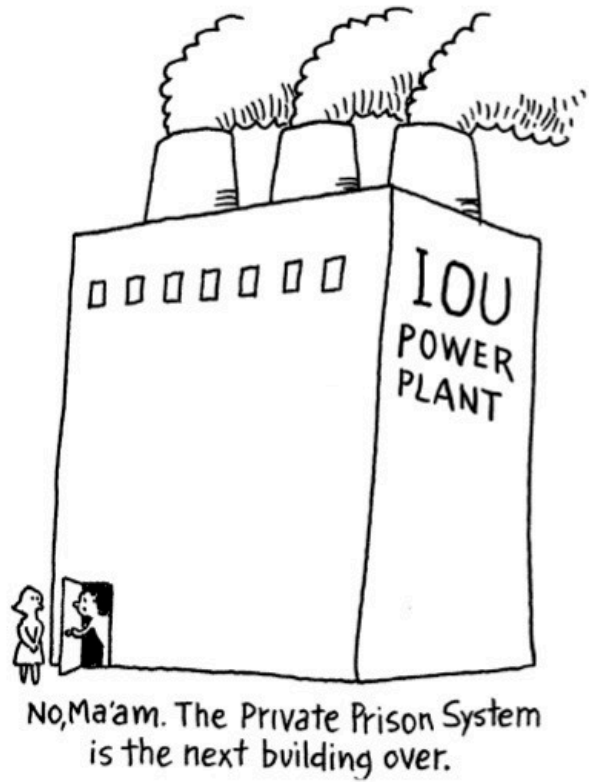
Innovation = Thought Leadership.



Scott Bolton
Pacifi Corp

TIMELINE

- JAN 30 FIRST MEETING
- FEB 22 LEARN ABOUT STATUS QUO
- MARCH 21 IN-DEPTH CONVERSATION AMONGST STAFF AND STAKEHOLDERS
- APRIL 24 FOCUS ON TECHNOLOGY & CHANGE, AND INVITE WRITTEN COMMENT
- MAY 22 DIALOG ON TECHNOLOGY TRENDS AND IMPACTS
- JUNE 26 IDENTIFY CHANGES IN REGULATIONS. DISCUSS STAFF PAPER
- JULY 17 DRAFT STAFF PAPER CIRCULATED
- AUG ? STAKEHOLDERS COMMENTS ON DRAFT REPORT DUE
- SEP 15 FILE THE FINAL REPORT WITH THE LEGISLATURE



Who is responsible for meeting customer values?
- Franco Albi,
Portland General Electric



SENATOR
LEE
BEYER

SB978 SECOND STAKEHOLDER MEETING

FEB 22 '18 @ OREGON PUBLIC UTILITY COMMISSION



Megan Decker
Commissioner

FOCUS OF THE DAY:
THE CURRENT
REGULATORY SYSTEM.

DON'T THINK ABOUT
THE FUTURE.

GUIDANCE
FOR THE
GROUP



THINK ABOUT THE NOW

OPUC'S FACILITATORS



WHAT DO WE HAVE
IN COMMON WITH
EACH OTHER?

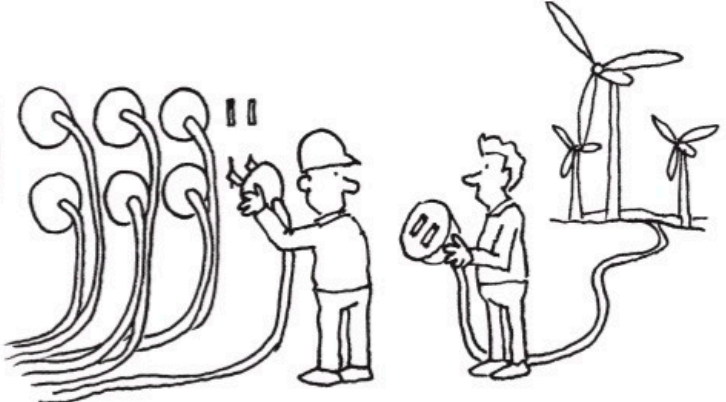


WE ARE ALL
RATEPAYERS



Jessica Shipley
RAP

KEY QUESTIONS:
WHAT'S WORKING?
HOW MEASURE?



OREGON REGULATION ASSUMES UTILITIES ARE NATURAL MONOPOLIES



UTILITIES MUST MEET

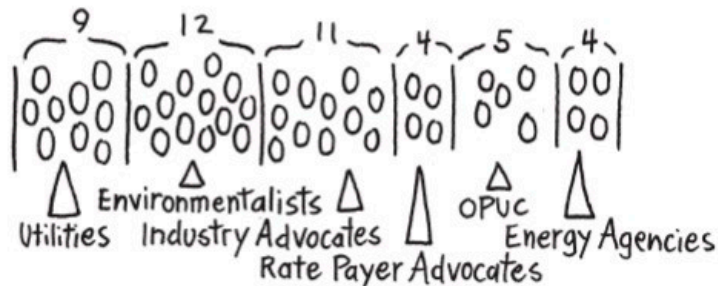
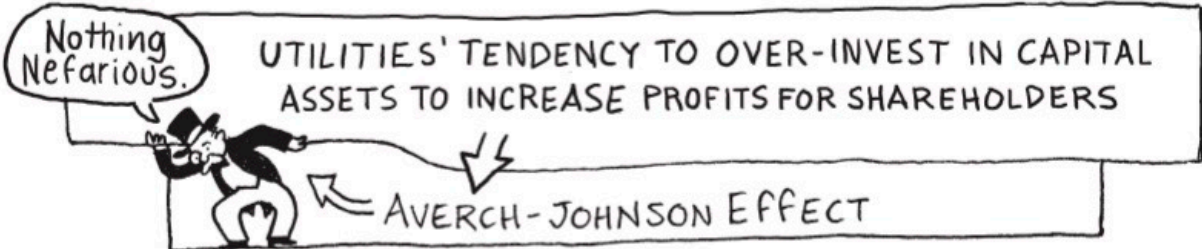
THE BASIC REVENUE REQUIREMENT FORMULA

$$\text{Rate Based Investment} \times \text{Rate of Return} + \text{Operating Expenses} = \text{Revenue Requirement}$$

REGULATORS SET

JUST & REASONABLE RATES FOR UTILITIES

~ Including Rates of Return ~



REGULATORS' OBJECTIVES

- NO EXCESSIVE RETURNS ON UTILITY INVESTMENT.
- NO DISCRIMINATION BETWEEN RATE PAYER OR CLASSES.



BEST IN U.S.A.

REGULATORS' TOOLS



- PRUDENCY REVIEWS - AFTER THE FACT
- INTEGRATED RESOURCE PLANS - BEFORE FACT
- COMPETITIVE BIDDING
- DECOUPLING & PERFORMANCE-BASED REGULATION



UTILITIES ARE MASSIVELY INVOLVED IN INFLUENCING RULES THAT REGULATE THEM.

DAVID BROWN

Obsidian Renewables

Where are the conflict of interest statues that apply to OPUC?



Leah Gibbs

Progressive

OREGON STORY

- SB1149** DIRECT ACCESS AUTHORIZATION ENERGY TRUST CREATION
- SB838** RENEWABLE PORTFOLIO STANDARD SET 25% by 2025
- SB1547** ELIMINATE COAL USE by 2030
50% RPS by 2040
- COMMUNITY SOLAR
- ELECTRIC VEHICLES

IS THE SYSTEM DESIGNED TO INTEGRATE TECH INNOVATIONS?

My career has spanned punch cards to the cloud. We have many options in front of us.



Alan Hickenbottom
Consultant



BOB JENKS
CUB

UTILITIES NOT VERY INNOVATIVE INDUSTRY.

SERVING THE MASSES WITH RELIABLE ELECTRICITY DOESN'T INVITE RISK TAKING.



Scott Bolton
Pacifi Corp

AS THE SYSTEM IS DESIGNED TODAY, DOES IT ALLOW FOR CONSUMER CHOICE?

What choices that do exist are in spite of the system not because of it.



Irion Sanger
NIPPC

I'M NOT SEEING A CHOICE HERE.



It comes down to those who can pay... It would be ideal not to depend on any utility.



INSTALLED SOLAR 15 YEARS AGO.



Kris Almah
Environmental Issues

As an economic regulator the OPUC can't regulate CO₂.

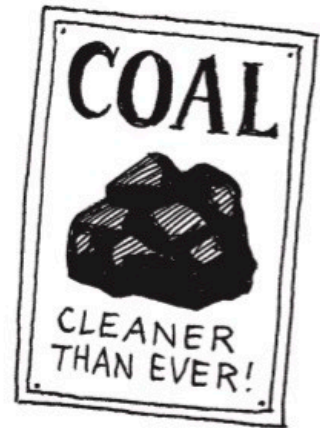


Brett Sims
Portland General Electric



Angus Duncan
Natural Resources
Defense Council

WE ARE STILL GOING
SIDEWAYS AND ONLY
POSTPONING THE
DAY OF RECONING.



DOES THE SYSTEM
ADDRESS EQUITY
CONCERNS?

PEOPLE MOST
AFFECTED ARE NOT
AT THE TABLE.



Scott Bolton
Pacifi Corp

YES, WE UNDERSTAND NEEDS.
WE DO THINGS THAT LOOK A
LOT LIKE A SOCIAL SERVICE
AGENCY.

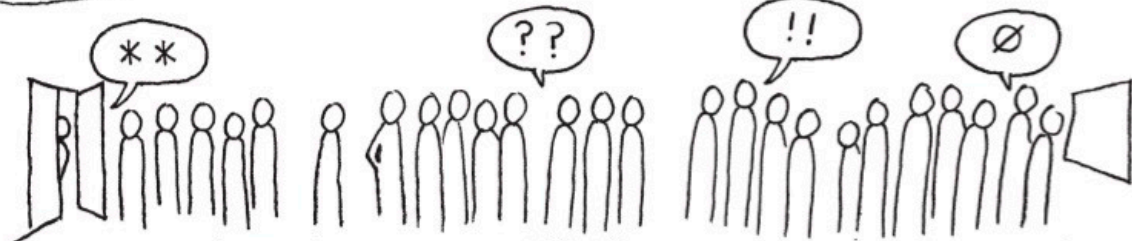
DOES THE CURRENT SYSTEM
ALLOW UTILITIES TO EXPAND
ELECTRIFICATION?



WE'RE NOT MOVING FAST
ENOUGH AS LONG AS OPUC
DEFINES ITSELF AS AN
ECONOMIC REGULATOR.



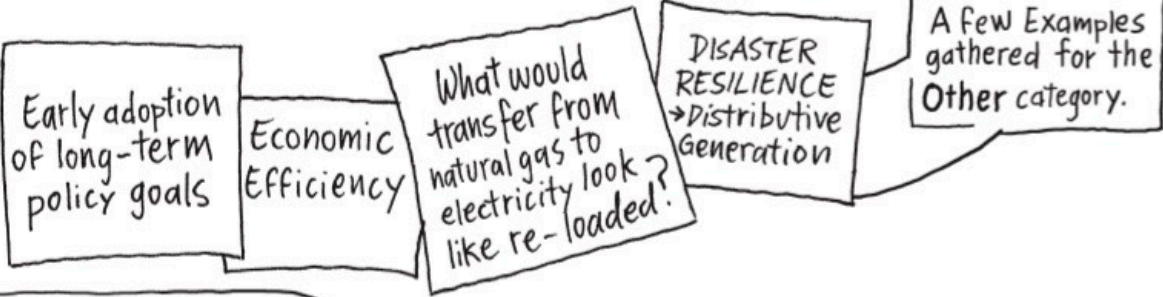
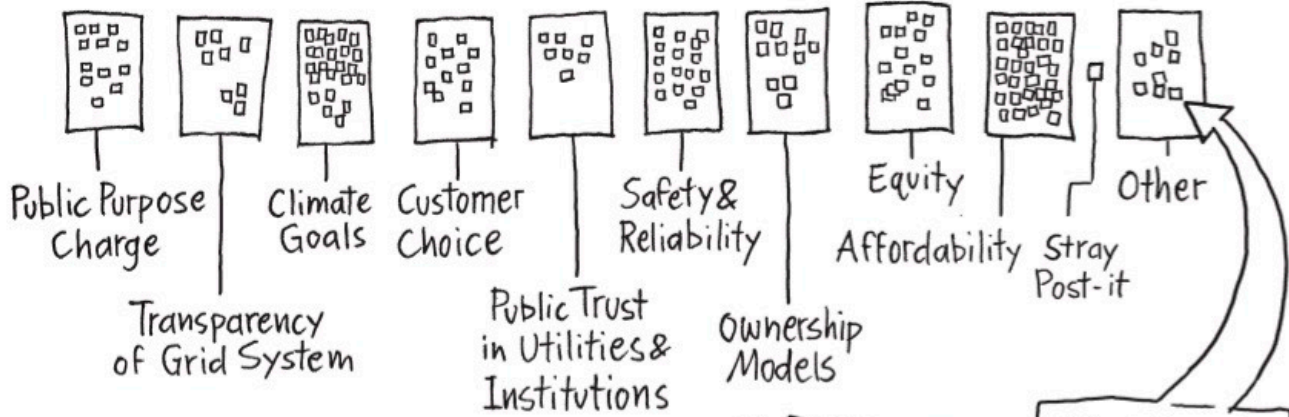
Sidney Villanueva
NIPPC



EXPLAIN WHY ARE YOU STANDING WHERE YOU ARE STANDING?

GATHERING THE METRICS

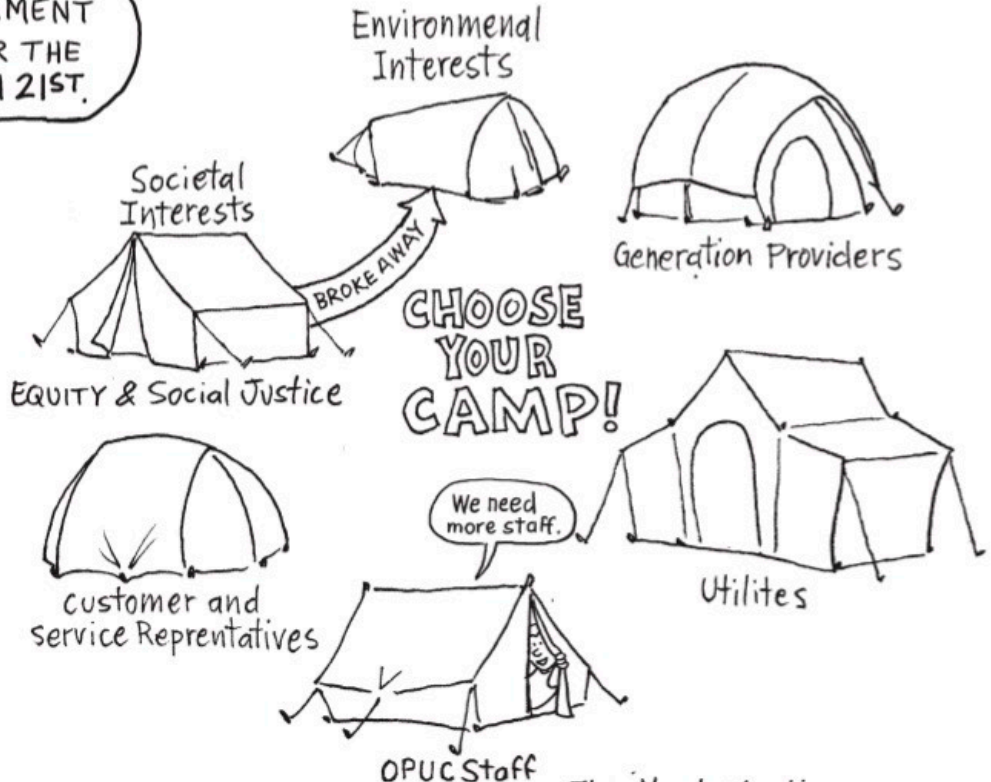
EVERYONE INVITED TO PLACE THEIR THOUGHTS FROM DISCUSSIONS INTO CATEGORIES



YOUR GROUP ASSIGNMENT IS A PRESENTATION FOR THE NEXT MEETING MARCH 21ST.



Julie Peacock
OPUC STAFF



KEEP IT SHORT

The Next Meeting is a LONG one

STARTS @ 9:00 am

TIMELINE

JAN 30 FIRST MEETING **DONE**

FEB 22 LEARN ABOUT STATUS QUO **DONE**

MARCH 21 IN-DEPTH CONVERSATION AMONGST STAFF AND STAKEHOLDERS **← NEXT**

APRIL 24 FOCUS ON TECHNOLOGY & CHANGE, AND INVITE WRITTEN COMMENT

MAY 22 DIALOG ON TECHNOLOGY TRENDS AND IMPACTS

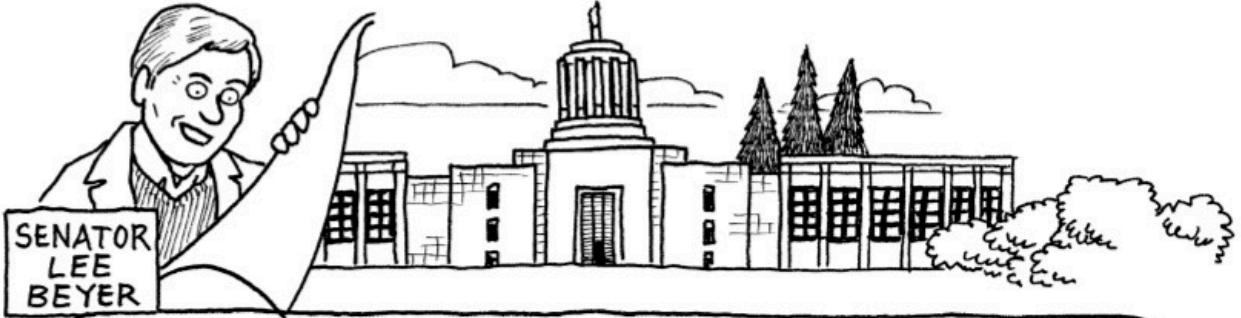
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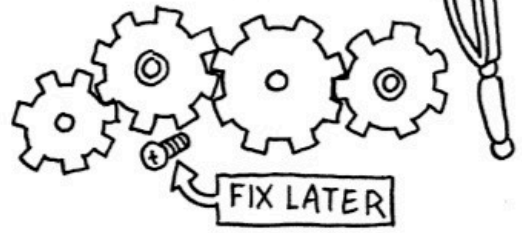


SENATOR
LEE
BEYER

SB978 THIRD STAKEHOLDER MEETING

MARCH 21 '18 @ OREGON PUBLIC UTILITY COMMISSION

TODAY'S OBJECTIVE:
EXISTING SYSTEM
EXAMINATION

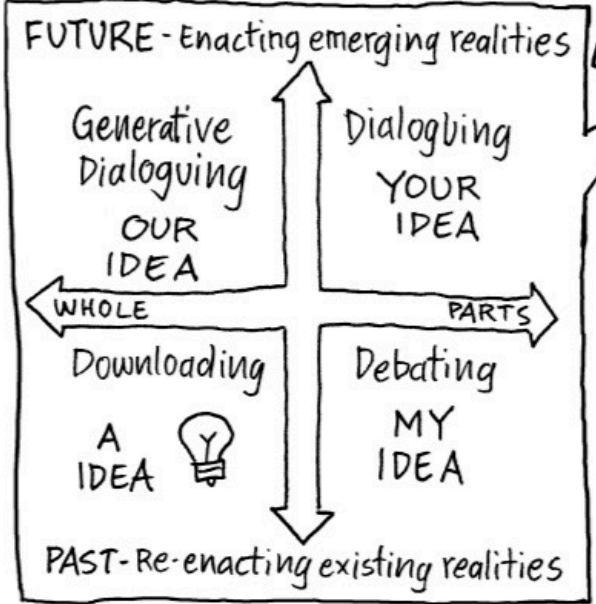


WHERE DO
WE AGREE OR
DISAGREE?

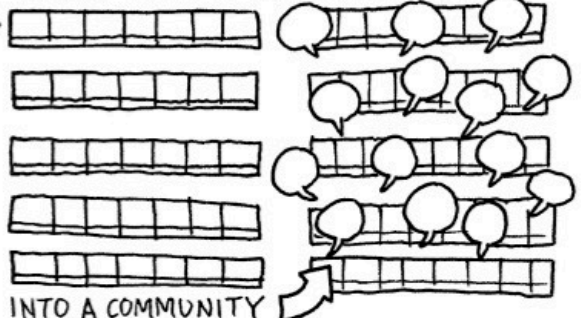


Julie Peacock
OPUC STAFF

A TOOL
FOR THE
DAY



TURNED ROWS OF STAKEHOLDERS...



INTO A COMMUNITY

Lessons Learned: Being Respectful.
Common Ground. Extra Energy.
You learn outside your knowledge base.



Video of Meeting: bit.ly/2E2EN44

SKETCHNOTES BY MARK MONLUX



I expect more
balance when people
understand all this.

Loretta Mabinton
PGE



CUSTOMER & CUSTOMER REPRESENTATIVES

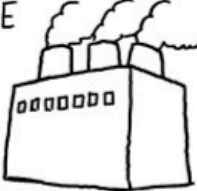
Citizens' Utility Board of Oregon
Portland General Electric, Small Business Utility Advocates
Northwest & Intermountain Power Producers Coalition
Democratic Socialists of America
Alliance of Western Energy Consumers



All Classes Affordability

NEED NEW REGULATORY MODELS

PRO-COMPETITION
PRO-CHOICE



> \$ IN UTILITY T&D
< \$ IN UTILITY OWNED POWER PLANTS

CUSTOMERS WANT CHOICE & FREEDOM TO CHOOSE



LONG-TERM INVESTMENTS RISKY WITH RAPID TECHNOLOGY CHANGE.

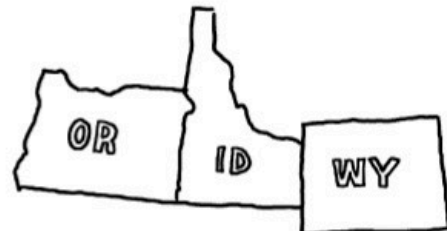
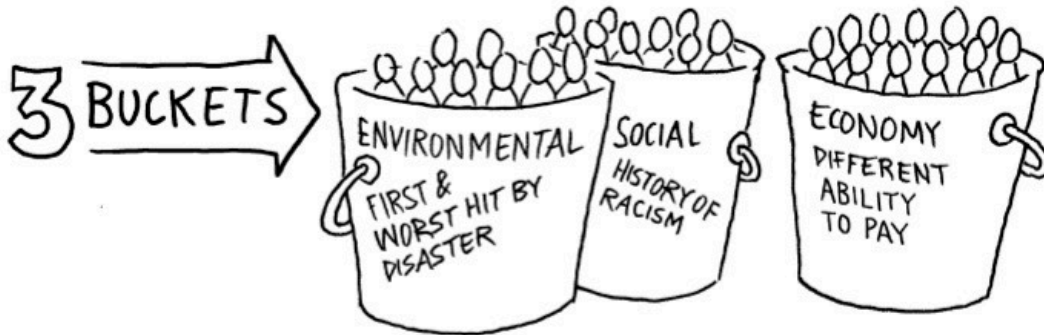


Tyler Pepple
Industrial Customers



EQUITY & ENVIRONMENTAL JUSTICE

Coalitions of Communities of Color
Northwest Energy Coalition, Portland General Electric
Democratic Socialists of America, Stop B2H
Community Action, Partners of Oregon
Oregon Physicians for Social Responsibility
Oregon Department of Energy, Multnomah County
Opal Environmental Justice, Verde



Wyoming is too far away to build wind farms when building them here helps rural Oregon.



UTILITIES

Portland General Electric
 Oregon Municipal Electric Utilities Association
 NW Natural, Pacifi Corp
 Bonneville Power Administration
 Umatilla Electric Cooperative
 Idaho Power Company
 Ann Fisher Legal and Consulting Service

SB978 Should preserve basic model and lead to more flexible, enhanced regulation.



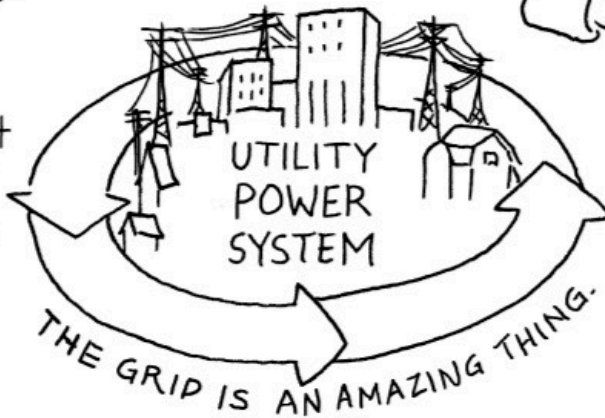
A LONG-TERM STEWARD



Scott Bolton
Pacifi Corp



Amongst the lowest prices for cleanest Power in the U.S.A.



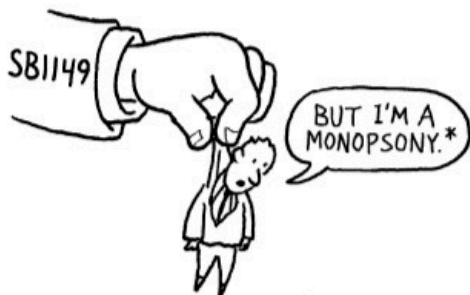


SERVICE GENERATORS & PROVIDERS

Community Renewable Energy Association, Obsidian Renewables
Northwest & Intermountain Power Producers Coalition
Green Energy Institute, Lewis and Clark Law School
Ken Kaufmann Law, Oregon Department of Energy, National Grid
Latitude 45 Associates, Renewable Northwest
Renewable Energy Coalition



NO LONGER A NATURAL MONOPOLY



WHAT ABOUT PURPA?

PUBLIC UTILITY REGULATORY POLICIES ACT

IOU SHAREHOLDERS DON'T BENEFIT BUT RATEPAYERS DO.



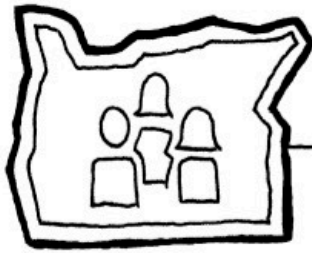
Incentives embedded in current system need updating.

CCAs can get Oregon to 100% renewable soon.

BRIAN SKEAHAN
CREA

SILVIA TANNER
RNW

*MONOPSONY = SOLE BUYER IN MARKET.
SKETCHNOTES BY MARK MONLUX



PUBLIC UTILITY STAFF COMMISSION

Public Utility Commission of Oregon



Lisa Hardie
OPUC CHAIR

Our goal is to simulate competition. Can we do it effectively?

OPUC IS PRIMARILY AN ECONOMIC REGULATOR



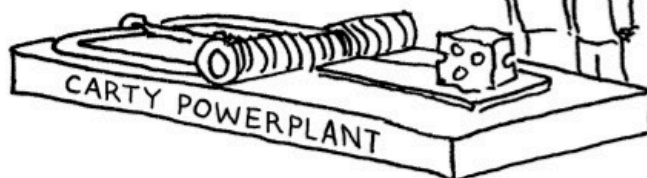
Utility self-generation > Risky than Purchasing Power.



Lance Kaufman
OPUC Staff

NEW UTILITY INVESTMENT RISK

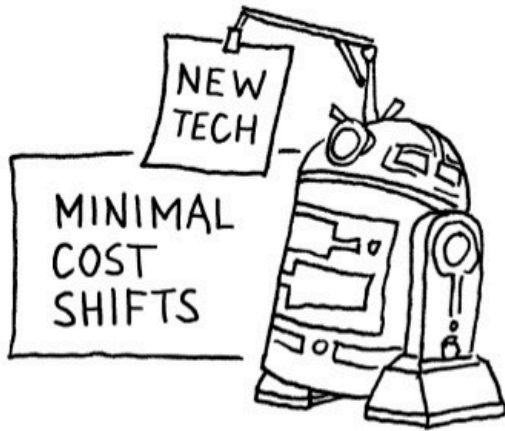
YOU FIRST.



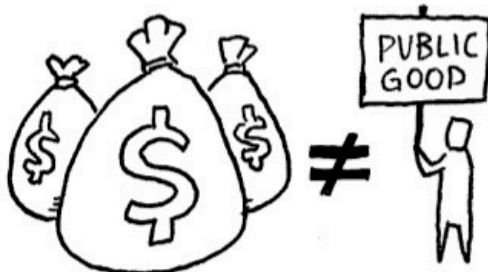


ENVIRONMENTAL CONCERNS

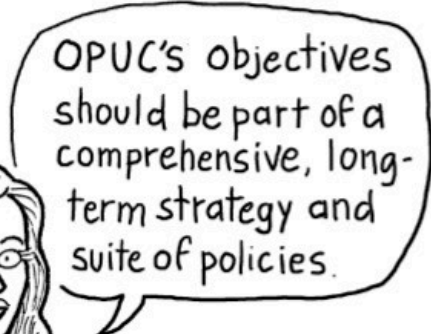
Natural Resource Defense Council, City of Portland
Power Oregon, Oregon Department of Energy
Center for Sustainable Economy, Stop B2H
Climate Solutions, Northwest Energy Coalition
Oregon Environmental Council, Sierra Club



System needs to adapt to rapidly changing needs and technology in order to provide promised benefits to the public.



SHAREHOLDER PROFIT IS IOUS' PRIMARY MOTIVATION



Wendy Gerlitz
Northwest Energy Coalition

ESSENTIAL FEATURES:
Rate Payer Advocacy coupled with knowledgeable, prudent & independent OPUC

TIMELINE



Elaine Prause
OPUC Staff
PRESENTED

METRICS

OPUC Staff uses to monitor current system

- RELIABILITY & SAFETY
SAIDI, SAIFI, MAIFI, CAIDI
- EFFICIENCY
Residential Rates vs. CPI
- AFFORDABILITY
System Peak vs. Average
- ENVIRO IMPACT
Metric Ton CO₂e/MWh
- CHOICE
Participation in Net Metering,
Direct Access, Voluntary Programs

THE CURRENT SYSTEM...

① Obligates utilities to offer reliable, safe service to all customers; in exchange, requires customers to pay rates that allow utilities an opportunity to recover their cost to serve plus an authorized rate of return.



	AGREE	DISAGREE
Customers	6	0
Equity & EJ	5	0
Generation & Service	10	0
Environ	5	0
Utilities	10	0

THE CURRENT SYSTEM...

② Gives utilities incentives to favor utility-owned capital investments over other potential solutions due to the ability to earn a return on those investments.



AVERCH-JOHNSON EFFECT

	AGREE	DISAGREE
Customers	5	1
Equity & EJ	5	0
Generation & Service	10	0
Environ	5	0
Utilities	0	8

THE CURRENT SYSTEM...

③ Authorizes the commission to act as economic regulator, but not as an environmental regulator.

	AGREE	DISAGREE
Customers	6	0
Equity & EJ	5	0
Generation & Service	3	6
Environ	3	2
Utilities	0	9

THE CURRENT SYSTEM...

④ Makes energy choices accessible to all customers while minimizing cost shifting.

HEARING THAT UTILITIES WON 95% OF RESOURCE SOLICITATIONS SURPRISED ME.



Richard Cowart

Regulatory Assistance Project

	AGREE	DISAGREE
Customers	0	6
Equity & EJ	0	4
Generation & Service	0	8
Environ	0	4
Utilities	10	0

THE CURRENT SYSTEM...

⑤ Utilize competition as a tool to make the system more affordable.

	AGREE	DISAGREE
Customers	6	0
Equity & EJ	0	4
Generation & Service	0	7
Environ	2	1
Utilities	5	4

THE CURRENT SYSTEM...

⑥ Balances risks associated with pursuing new versus embedded technologies and services.

	AGREE	DISAGREE
Customers	0	6
Equity & EJ	2	1
Generation & Service	1	6
Environ	0	3
Utilities	0	9

THE CURRENT SYSTEM...

⑦ Promotes environmental, social, and economic justice.

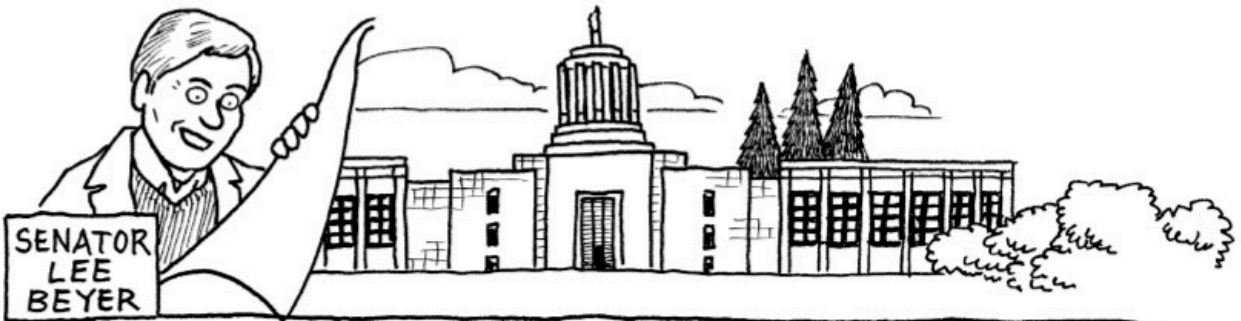
	AGREE	DISAGREE
Customers	2	4
Equity & EJ	0	3
Generation & Service	1	7
Environ	0	3
Utilities	4	5

Utility models need to change. Nobody is to blame. Stakeholders are aligned.



The process is important. We haven't yet talked about all the changes coming. A lot is going on.





SENATOR
LEE
BEYER

SB978 FOURTH STAKEHOLDER MEETING

APRIL 24 '18 @ OREGON PUBLIC UTILITY COMMISSION

WELCOME BACK TO OUR
FOURTH SESSION!
FOCUS ON FUTURE TRENDS.



Julie Peacock
OPUC STAFF

ONCE IT'S ATTACHED, JUST LET
THEM KNOW WHAT THE OTHER
IS DOING.



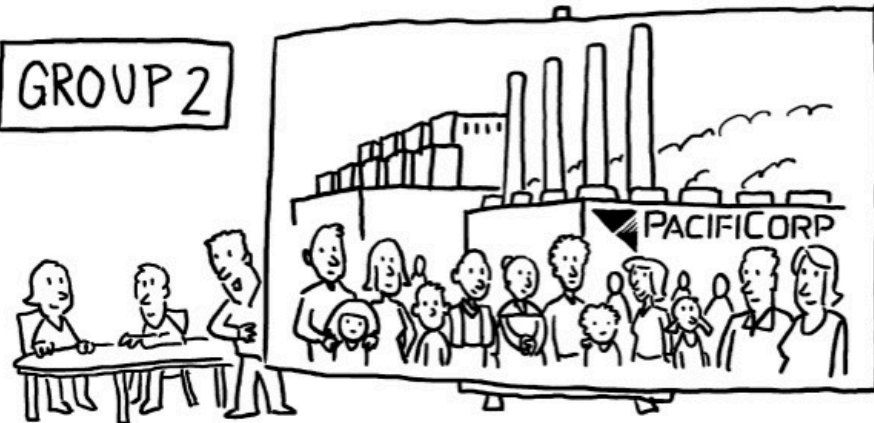
HOMework SHARE IMAGES SHOWING TRENDS
AFFECTING OREGON

GROUP 1



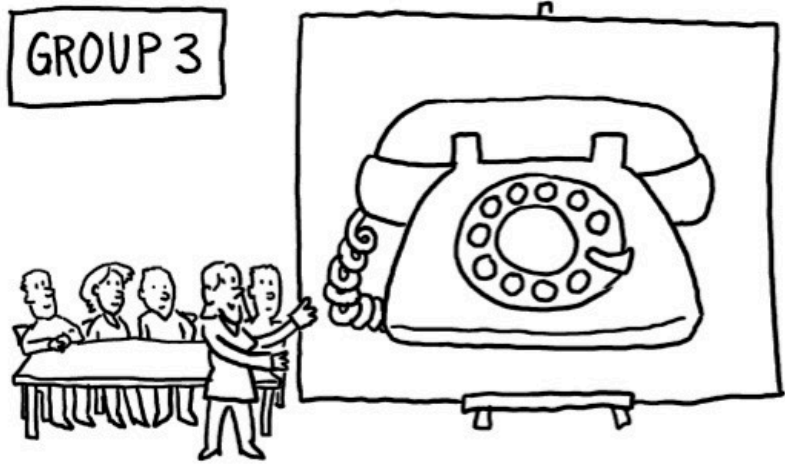
CO-OP RENEWABLES
HELPED BY SB1520.
INNOVATIVE POLICY
SPURS INNOVATIVE
TECHNOLOGY AND
COMMUNITY
DEVELOPMENT.

GROUP 2



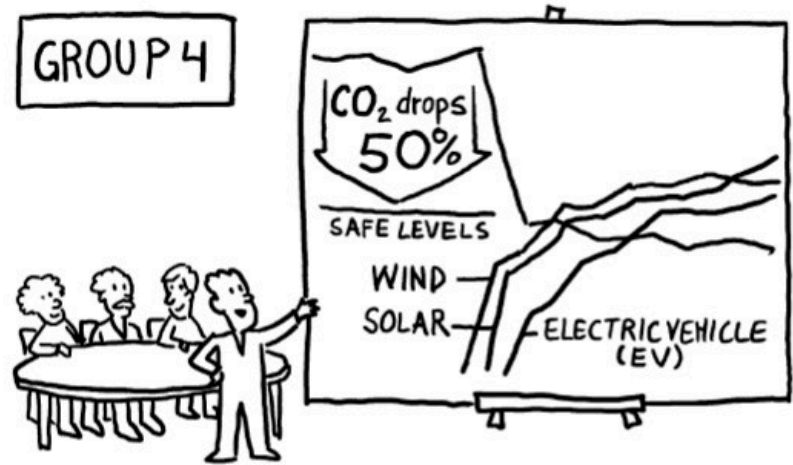
DECISIONS HERE MATTER TO OUR EMPLOYEES AND THEIR COMMUNITIES IN WYOMING.

GROUP 3



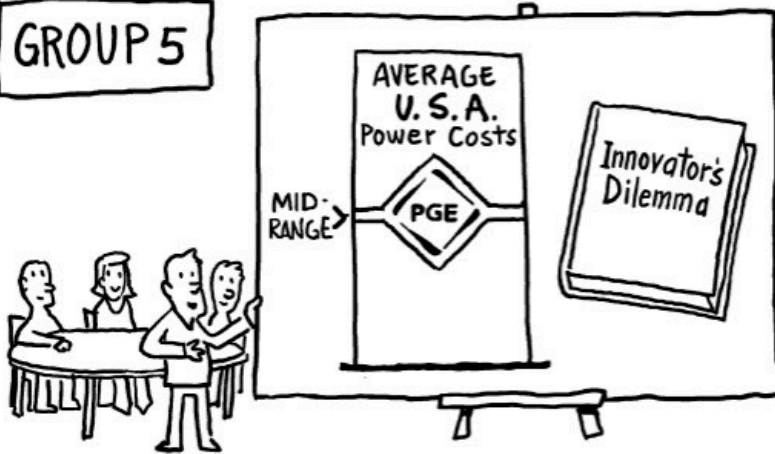
OLD REGULATORY MODEL OFFERS DIFFERENT COLOR PHONES BUT NOT TRUE CHOICE. ALL CONSUMERS RISK PAYING FOR COSTLY STRANDED UTILITY ASSETS.

GROUP 4



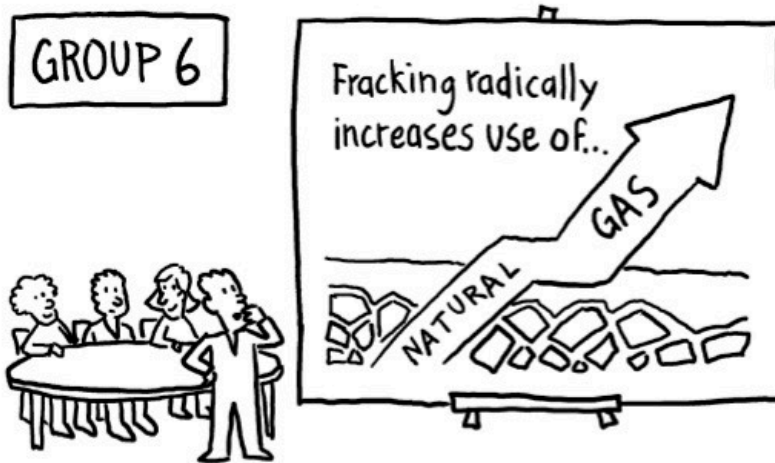
STEEP CARBON REDUCTIONS WILL OCCUR WHEN LOW-EMITTING TECHNOLOGIES COST LESS THAN INCUMBENT TECHNOLOGIES.

GROUP 5

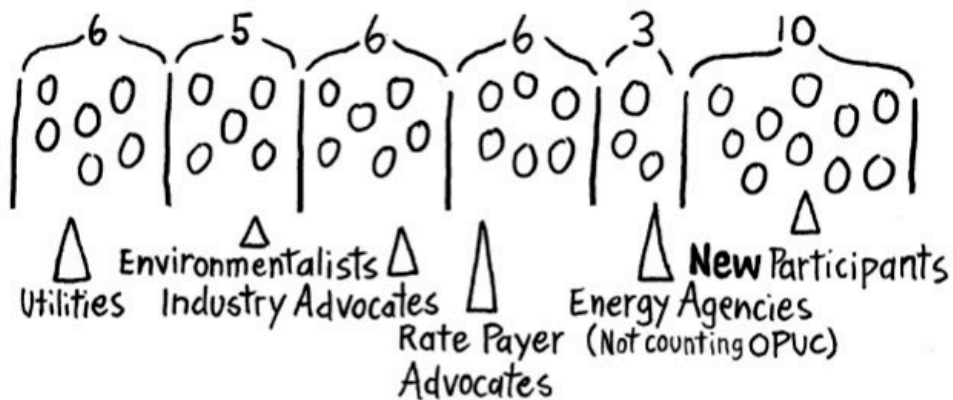


HOMETOWN UTILITY'S COSTS ARE ATTRACTIVE—MUCH CHEAPER THAN CA OR NY. CHANGE CAN COME SUDDENLY AND CRUSH THE STATUS QUO.

GROUP 6



BILLIONS OF DOLLARS IN CLIMATE CHANGE IMPACTS IN 2017—NOT COUNTING WILD FIRES. *(with scribbles)*





Rachael Gold
RMI

Speech bubble: Panels to explore emerging trends. What do these trends mean for Oregon? What are Oregon's policy options in response?

REGIONAL ENERGY TRENDS



BEN KUJALA

Power Division Director
Northwest Power & Conservation Council

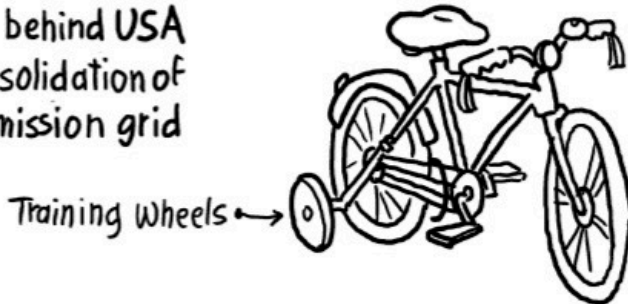


“Big Ten” Federal dams on Columbia

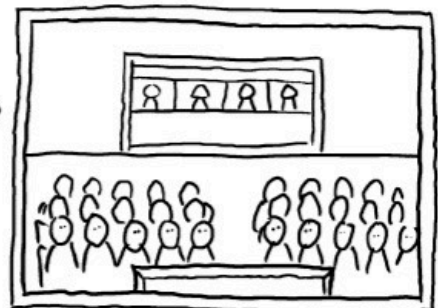
- Energy efficiency always least cost, reliable resource
- PNW super unique 54% Hydro but



- Very complex power system with variable, renewable energy
- Carbon emissions: “not nice” future projection
- Flat load growth even with robust economy
- Over 50 parties responsible for managing western grid
- Way behind USA in consolidation of transmission grid



Offsite Panelists Viewed at Venue



Remote viewing via Website

PACE OF TECHNOLOGICAL ACCELERATION



UTOPUS
INSIGHTS

CHANDU VISWESWARIAH, Ph.D.
President and CEO

- 397 months in a row hotter than 20TH Century average
- Clear urgency to decarbonize
- Is future coming at us faster?

Google Searches	2.4 M/minute	19 years
E-mail	150 M/minute	25 years
Snapchat	1.8 M/minute	6 years

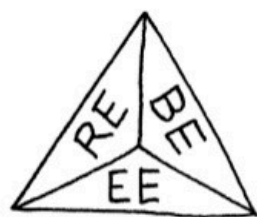
Three Big "D's" are driving change:

- 1 → Digitization
- 2 → Decarbonization
- 3 → Decentralization

- Need digital intelligence to drive renewable development
- Use flexibility in loads
- Manage uncertainty to create a symphony



- Would not design regulation we have today to do what's needed



DIGITIZATION

EE + BE = FE → RE ↑
Energy Efficiency
+ Beneficial Electrification
= Flexible Energy which enables
higher Renewable Energy
integration with Digitization

Energy Efficiency plus Beneficial
Energy equals Flexibility in load,
Integrated Renewables

Time to hitch a ride on the digital bandwagon!

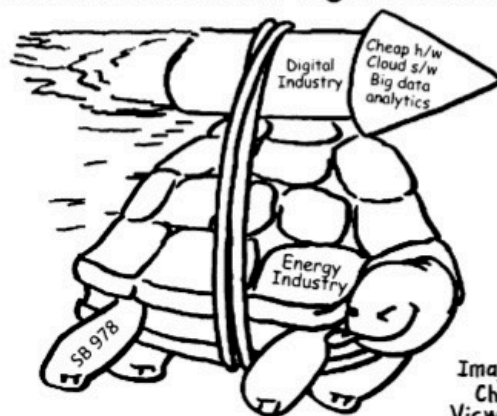


Image Credit:
Chandu
Visweswariah

The pace of Technological Change

5



Rebecca O'Neil

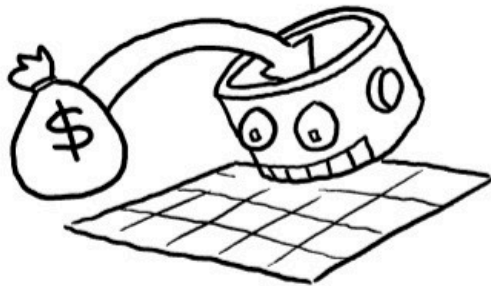
Program Manager
Pacific Northwest National
Laboratory



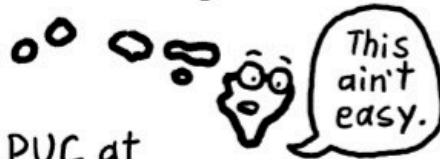
Pacific Northwest NATIONAL LABORATORY

- Technological acceleration in energy technology: **time vs. pace**
→ Hawaii PUC dealing with rapid pace of change

- Next: investment of billions in smart grid technology

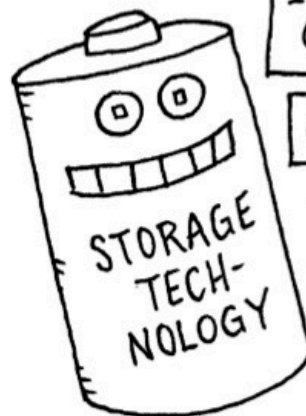


- Oregon PUC at point of inflection



- Wind and Solar mature: grid parity now question of capability
- Storage
 - Battery costs per kWh dropping dramatically
 - Long way to go — need other solutions too

MANY WAYS TO INTEGRATE RENEWABLES -
BATTERIES ONLY ONE TOOL IN TOOLBOX



I'M GETTING CHEAPER.
QUICKLY!



CUSTOMERS WANT CHOICE BUT A RANGE OF CHOICES.

Introduces next panel via video

CUSTOMER DIFFERENTIATION

Julie Peacock
OPUC STAFF



DAVID RUBIN
Director of Service Analysis
Pacific Gas & Electric

- Decoupled regulation: PG&E incentivized to sell less electricity
 - Utility funds customers to manage energy use
 - Community Choice Aggregation (CCAs) advancing customer options
 - How much choice do customers really want?
- Must adjust rate design to account for changes
- PG&E offers choice programs tailored to low-income 20% discount

energysage ⚡
Vikram Aggarwal
Founder and CEO

- Consumers want choice and transparency to make informed choices
- They look for data and trustworthy information re: technology
 - Equipment and installation costs matter
 - Quality conscious and will pay more
- Shop for best financing options



wee.green

Toni Bouchard
Co-founder & President

Communities can
come together
and create
change

- Marketers for energy efficiency and solar
 - SmartPower (Massachusetts)
 - Solarize (Connecticut)
- Took longview - reached 169 CT towns
- Offer online evaluation functionality like Turbo Tax
- Promote regulations to offer customers more access to marketplace

EVOLVING PUBLIC POLICY OBJECTIVES IN OREGON

Why do you think this SB 978 process is needed or helpful for you in your job?



RUCHI SADHIR
OR Dept. of Energy

Reason I wrote SB 978: regulatory paradigm doesn't work into future. Legislature focused - how do we adapt to climate change?



LEE BEYER
Senator, District 6

- OPUC and utilities will play a major role in reducing emissions
- Must wheel electricity from wherever it's generated - utilities do that
- I drank the Kool-Aid but later found deregulation wasn't the answer
- Did I think cell phones would replace landlines? No. LOL

- OPUC's job itself shouldn't change much
- Utilities in best position to implement climate goals
- "Cap & Invest" legislation is one way to make transition fair



MARK GAMBA

Mayor of MILWAUKIE, OR

- Committed to hard target: net zero carbon city by 2040
- Experiencing costs of climate change now
Must include externalities as true "least cost"
- Very interested in Community Choice Aggregation (CCA)
- Community solar rulemaking – sadly not a lot of opportunity there
- Inherently unfair rates between residential and industrial users
- SB 978 must lead to doing much more CO₂ reductions
- Future of utilities: T&D/balancing, not generation

- Speaking in FAFLAs = four and five letter acronyms
- Trend: electric system needs to be more than it is now
- Consumers seek greater control
- Transform transportation system away from fossil fuels
- Must think beyond reasonable rates and reliable paradigm
- SB 978 asks how to integrate benefits we want into energy policy
- Increase size of policy toolbox – including CCAs
- Lots of confidence in OPUC people and structure



KEN HELM

Representative, District 34



MIKE O'BOYLE

Electricity Policy Manager
Energy Innovation

- Decarbonize grid by reforming utility regulation and business models
- Information asymmetry between regulators and regulated

CONTEXT: POWER SECTOR EVOLUTION

Old Goals:

- Meet growing demand
- Build new infrastructure
- Build to deliver universal service
- Affordability, Reliability, Safety

Options:

- Centralized power plants
- Transmission lines
- Distribution system

New Goals:

- Build → Maintain
- Reliability → Resilience
- Clean power
- Customer satisfaction
- Affordability, Safety

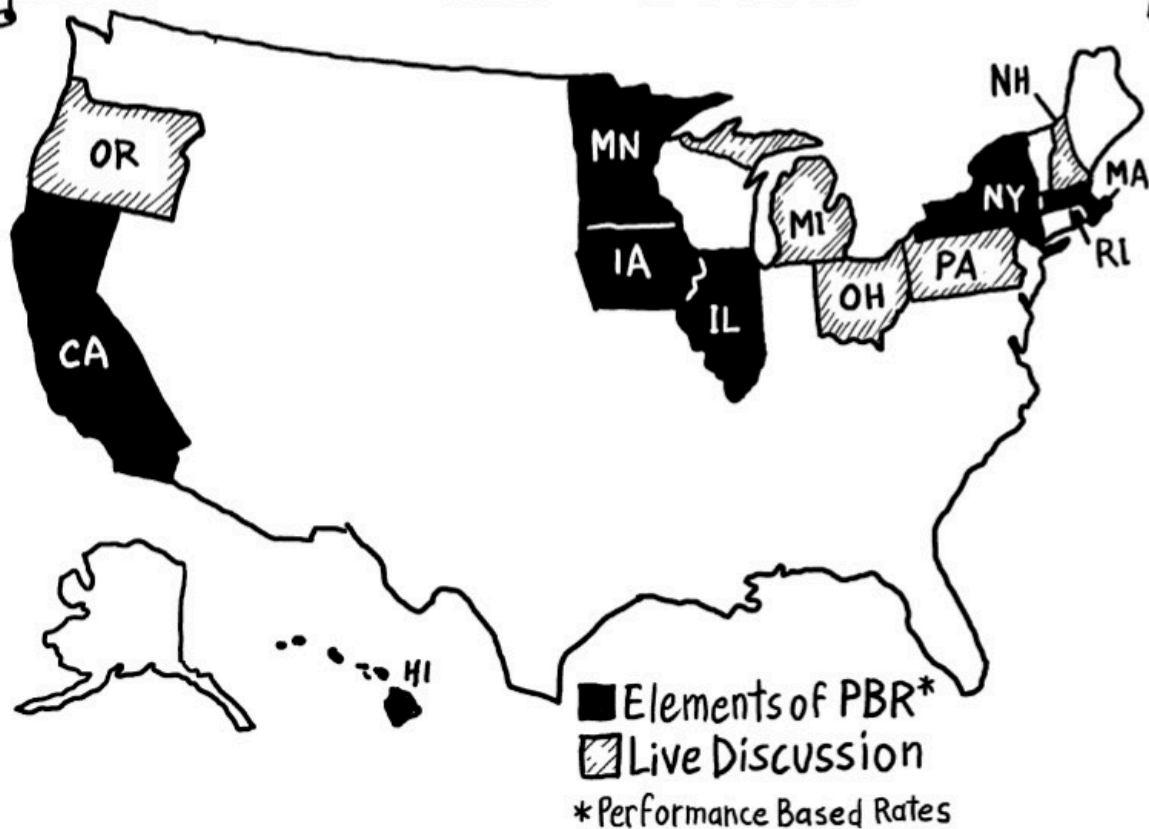
New Options:

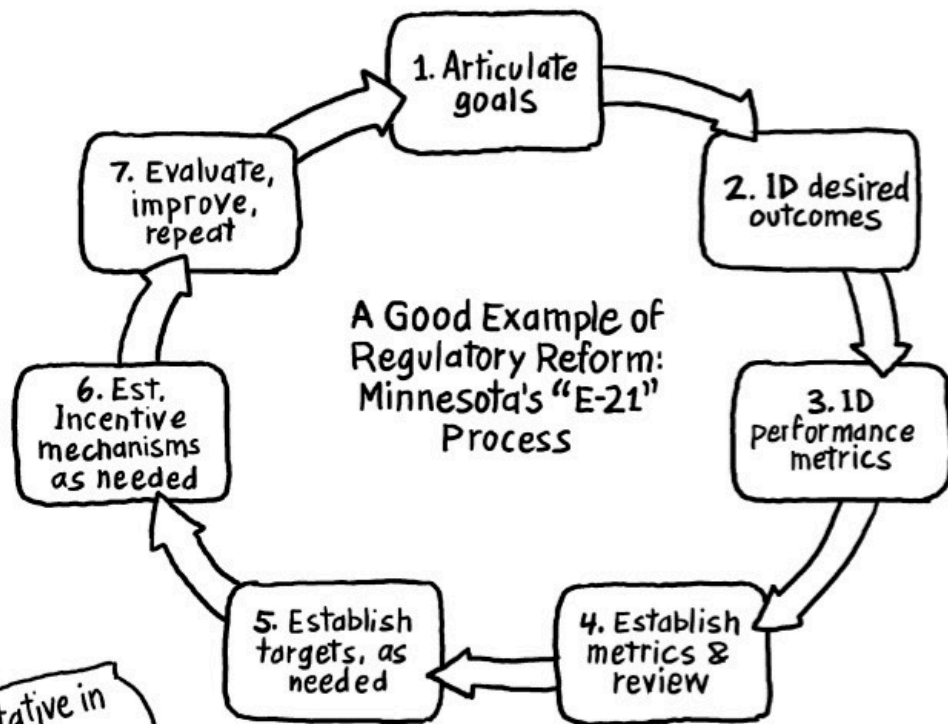
- Least-cost variable resources
- Innovative distributed energy resources (EE, DR, PV, EVs, etc.)
- Advanced IT & big data

- 3 reforms to utility regulation – reexamine incentives
- 1 - Lower ratepayers' costs/raise revenues
 - 2 - Reward performance
 - 3 - Shift off cost-based incentives

Revenue Adjustment Mechanisms	Performance Mechanisms
Revenue decoupling	Shared savings mechanisms
Revenue or rate caps	Benchmarking
Multi-year rate plans	Performance incentive mechanisms
Investment trackers	Performance standards (e.g. RPS)

STATES CONSIDERING REGULATORY REFORM





A Good Example of Regulatory Reform: Minnesota's "E-21" Process

Get quantitative in resetting rate payer & IOU shareholder values

Why issues are important? What are trade-offs between costs/benefits?

OPUC has been listening: four broad themes have surfaced.



Julie Peacock
OPUC STAFF

ONE THEME PER TABLE AS GROUP RE-ASSEMBLES



Reports from each group: What needs to be considered in the balance?



GROUP ASSIGNMENT

CREATE
TWO
PAGE
MEMO

Prepare 20-minute
presentation for
delivery at May 31st
meeting in Portland

Address these questions for OPUC
commissioners to take away:

- ① What is the nature of policy tension/question? What's happening?
- ② To what extent does this policy tension exist in Oregon? Why is it relevant to the state?
- ③ What policy or regulatory actions are needed to address the issues?
- ④ How are others responding? Are those responses feasible in Oregon?
- ⑤ How should Oregon respond?

Get the
language
right.

Clearly define
the challenges.



Julie Peacock
OPUC STAFF

TIMELINE

