



# ARIZONA ENERGY MODERNIZATION PLAN

Andy Tobin, Arizona Corporation Commissioner

# ARIZONA ENERGY MODERNIZATION PLAN

80%  3GW  50k  1.5%  Ready 

## Objective

- Update Arizona's energy policies
- Provide affordable energy to consumers
- Lead the nation in adapting to new technologies
- Prevent double-recovery, curtailment, and stranded assets

## Scope

- Renewable Energy Standard and Tariff (REST)
  - Clean Resource Energy Standard and Tariff (CREST)
  - Clean Peak Target
  - Biomass Production Requirement
- Integrated Resource Plans (IRPs)
  - Energy Storage Target
  - Compliance and Planning Reformation
- Demand-Side Management (DSM) and Energy Efficiency (EE)
  - Transportation electrification
  - Water-energy nexus

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## GUIDING PRINCIPLES

1. Resiliency (Security)
2. Affordability and Reliability
3. Innovation
4. Economic Development
5. Resource Diversity

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3GW



50k



1.5%



Ready



## BUILDING ON THE RENEWABLE ENERGY STANDARD AND TARIFF (REST)

- Keeps all existing REST targets in-tact
  - (15% goal by 2025 is unchanged)
- Seeks to shift a portion of REST-qualified assets to on-peak hours
- Asks that a sustainable portion (60MW) of REST compliance come from Arizona-harvested biomass resources





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## WHAT WILL THE CLEAN RESOURCE ENERGY STANDARD AND TARIFF (CREST) LOOK LIKE?

- 80% clean energy portfolio by 2050
- Clean definition
  - Solar, wind, nuclear, hydro, and any other zero-carbon emission resource
- 20% recognized for flexibility, baseload, or market purchases
  - Based on current portfolios and portfolio projections for the future
- 2050 target
  - Respects existing investment lifespans and prevents curtailments
  - Gives room for acceleration

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80% clean

80% Clean Energy portfolio  
by the year 2050

“zero net emissions beyond that  
of steam”

Includes nuclear

Accounts for baseload needs  
and existing plant lifespans

Prevents new build-out of non-  
clean plants

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# 3GW storage

## 3,000MW of Energy Storage Capacity by the year 2030

- Technology agnostic
  - Battery storage
  - Pumped hydro
  - Compressed air
- Based on utility projections
- Helps to provide solar power during hours when the sun doesn't shine

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50k acres

## 60MW of Arizona-Biomass Generated Energy per year

- Calculated for sustainability (no clear cuts)
- 50,000 acres thinned per year  
1 million acres in 20 years
- Must be Arizona-sourced (at least 80%) (high-risk forest) (small diameter trees)
- Reduce wildfire risk via existing REST framework




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# 1.5% on peak

## Clean Peak Target that increases 1.5% each year

- Top 10% of energy use accounts for top 40% of energy cost
- Percentage of “on peak” hours must come from clean resources
- Hours from 3pm to 8pm
- Incentivizes energy storage
- Helps equalize “peak” demand (duck curve)

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# EV ready

## Modernize Energy Efficiency & Prepare Transportation Electrification infrastructure

Revisit and reform the existing  
energy efficiency rules

Prepare Arizona for the electric  
vehicle economy

- Requires plans for EV infrastructure  
build-out  
(commercial & residential)  
(government & highway)

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## HOW WILL THESE TARGETS HELP ARIZONA RATEPAYERS?

Potential to reduce funds needed for future wildfire suppression

Prevents utilities from over-investing in resources likely to be curtailed, which protects ratepayers from double-paying on stranded assets

Prevents curtailment of existing resources by respecting their remaining lifespans

Saves ratepayers on the most expensive hours of the day, by shifting load and reducing peak demand

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## NEXT STEPS

1. Commission vote to approve the plan  
**Biomass moved forward on 3/13/2018**
2. Begin the rulemaking process
3. Collect stakeholder comment
4. Refine plan details & rule language
5. Finalize rulemaking by end of 2018

An aerial photograph of a deep, narrow canyon with steep, layered red rock walls. A river flows through the center of the canyon, curving to the right. The river is dark blue-green, contrasting with the warm, orange-red tones of the rock. Sparse green vegetation is visible along the riverbanks and on the lower slopes of the canyon walls.

THANK YOU

FOR QUESTIONS:  
[DSCHWIEBERT@AZCC.GOV](mailto:DSCHWIEBERT@AZCC.GOV)