

SIGN IN

CGS COMMUNITY OPEN HOUSE EXPO



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WELCOME

CGS COMMUNITY OPEN HOUSE EXPO



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CGS OVERVIEW



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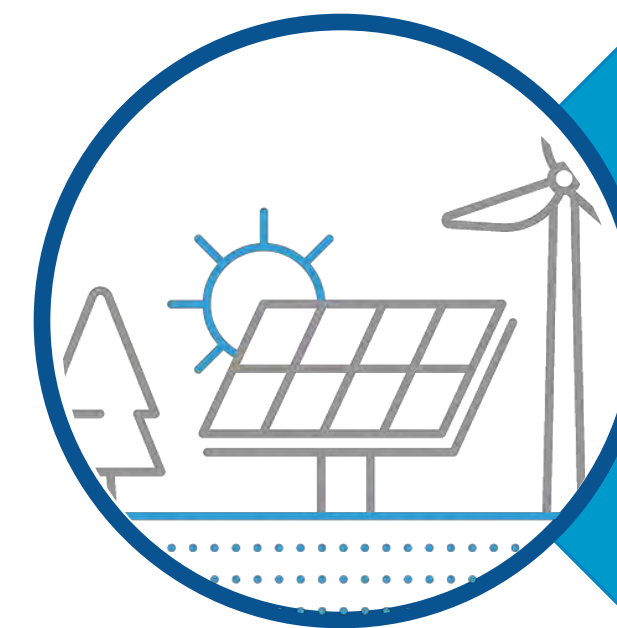
What will you learn at the Open House?



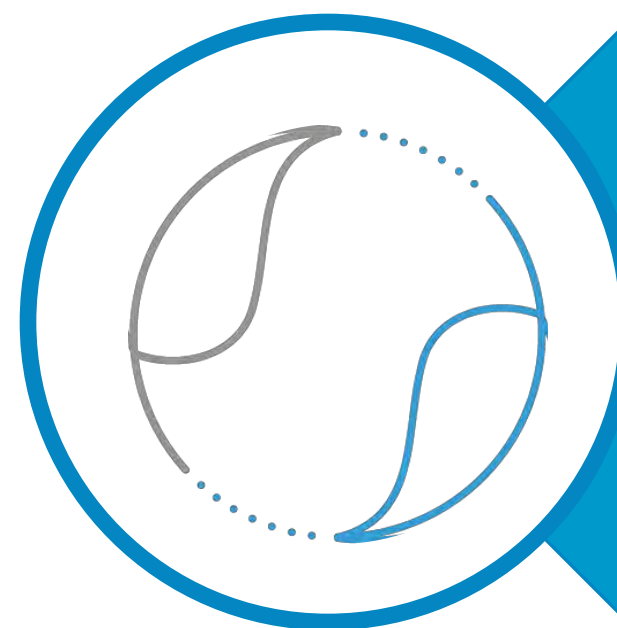
Discover more about SRP's long-standing relationship with the St. Johns Community



Learn how SRP's Coal Communities Transition (CCT) Team is supporting the Apache County communities as they develop and implement strategic plans to diversify their economy

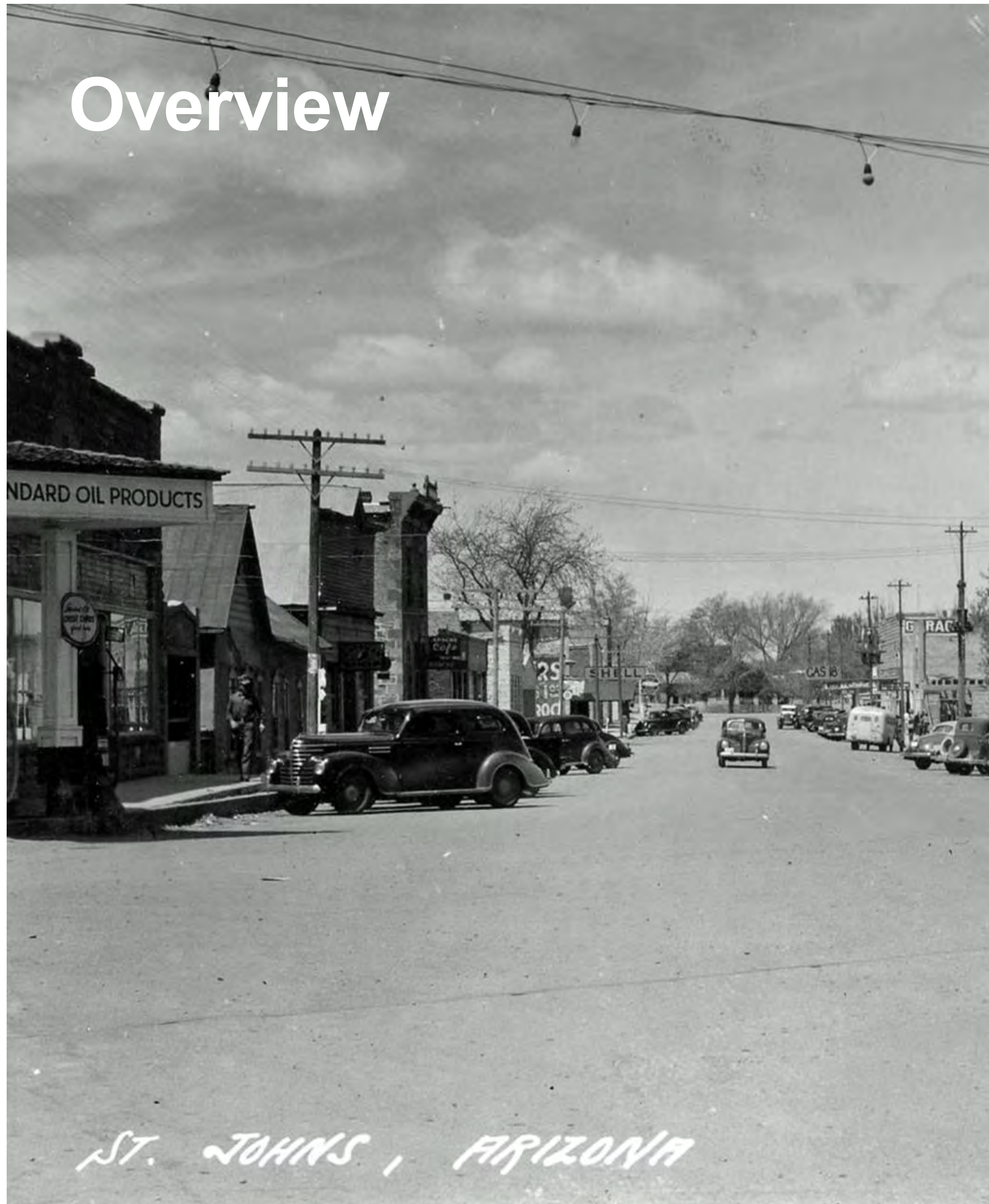


Learn more about CGS Repurposing Study, the study process, its timing and how you can stay informed



Discover some of the technologies being studied and how they work

Overview



- Since construction of the Coronado Generating Station (CGS) began in 1975, SRP and the City of St. Johns have enjoyed a long-standing relationship
- In January 2020, SRP announced that CGS would be retired no later than 2032
- SRP created the Coal Communities Transition team to support impacted communities reliant on CGS as they shift their focus to develop sustainable and strategic economies
- Support includes job skills training and contributions to nonprofits that support these communities

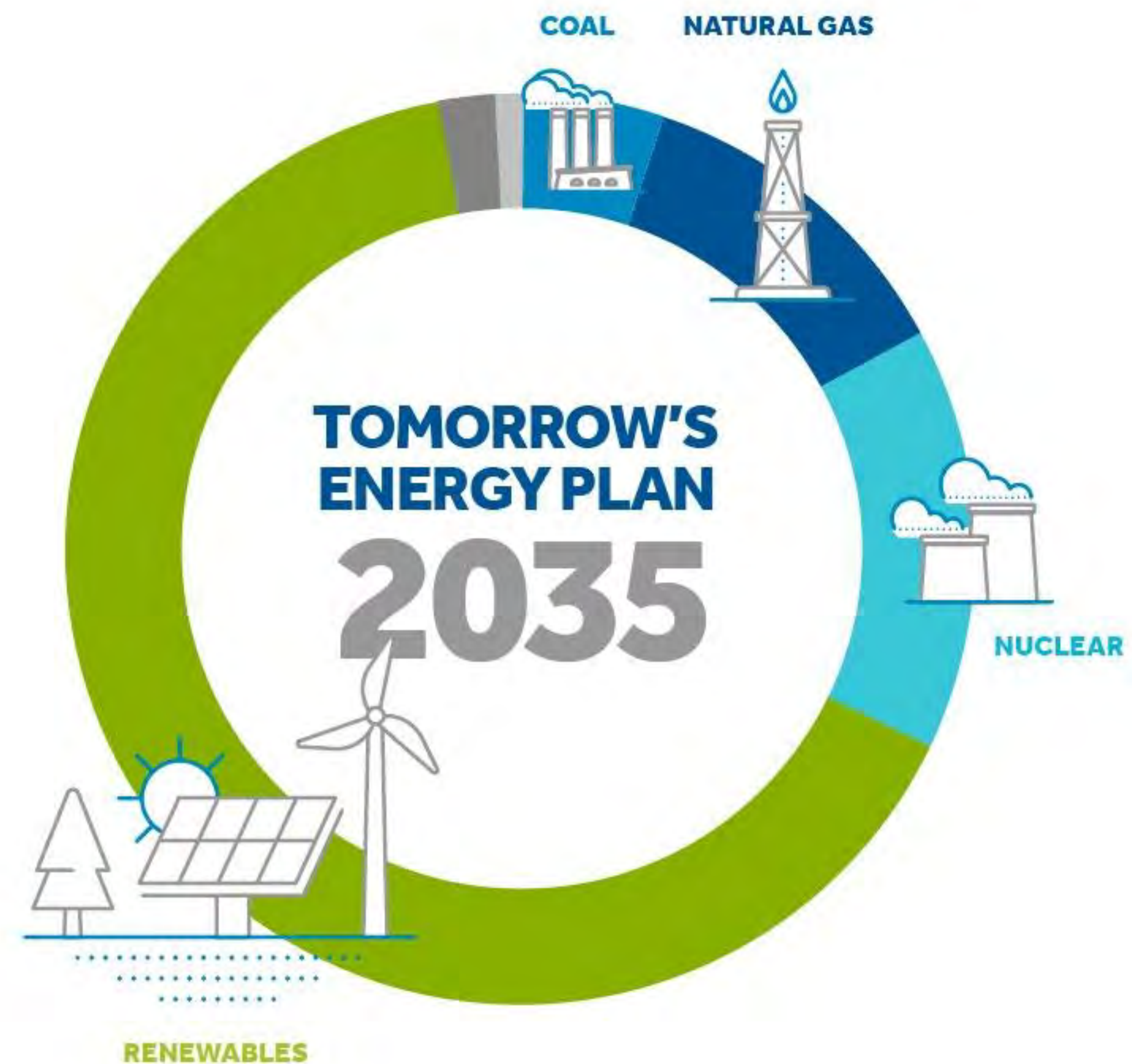
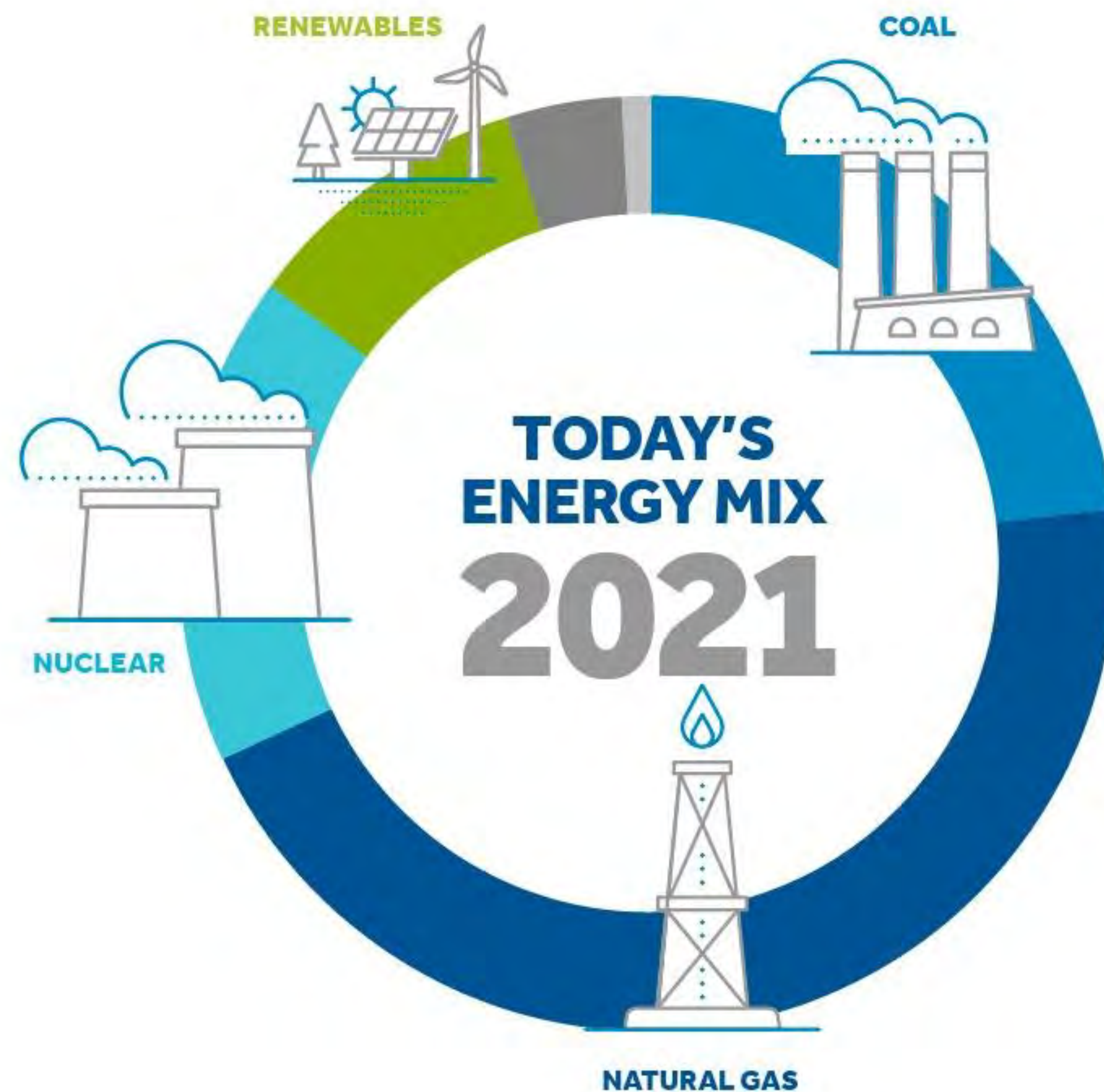
Overview

This transition requires thoughtful evaluation and collaborative planning to integrate clean, renewable, and sustainable energy resources and to achieve SRP's 2035 Sustainability Goals

- Ensuring sustainable, cost-effective, reliable power delivery is a cornerstone of SRP's customer-focused mission
- The electric power industry is undergoing a significant transition driven by changes in technology, economics, regulations and customer demands

SRP's Future Energy Mix

SUSTAINABLE. RELIABLE. AFFORDABLE.



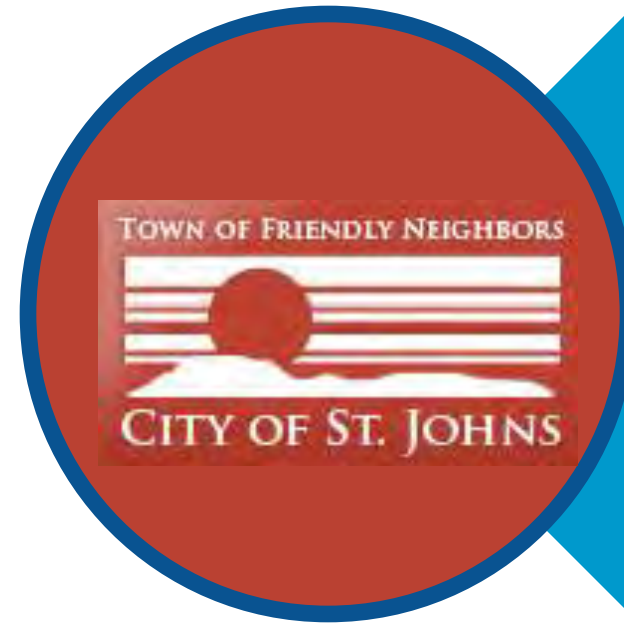
COAL COMMUNITIES TRANSITION



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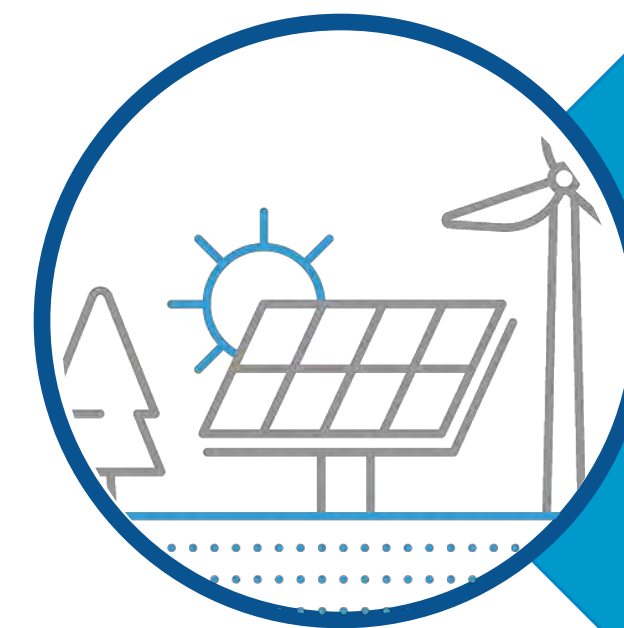
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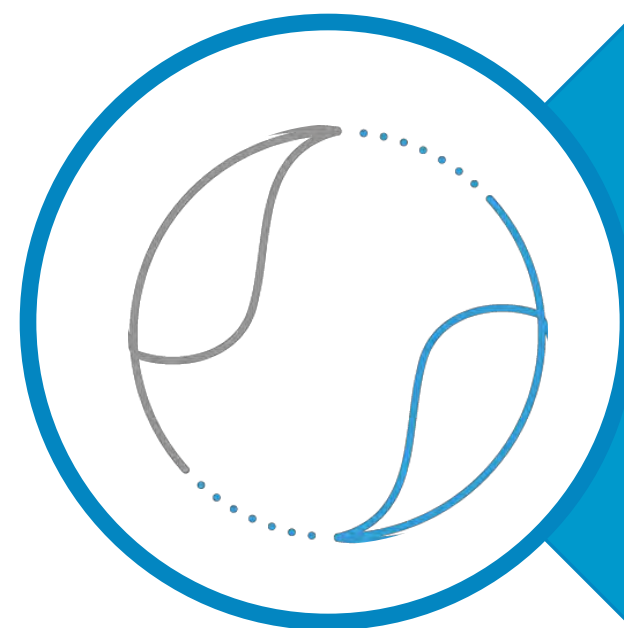
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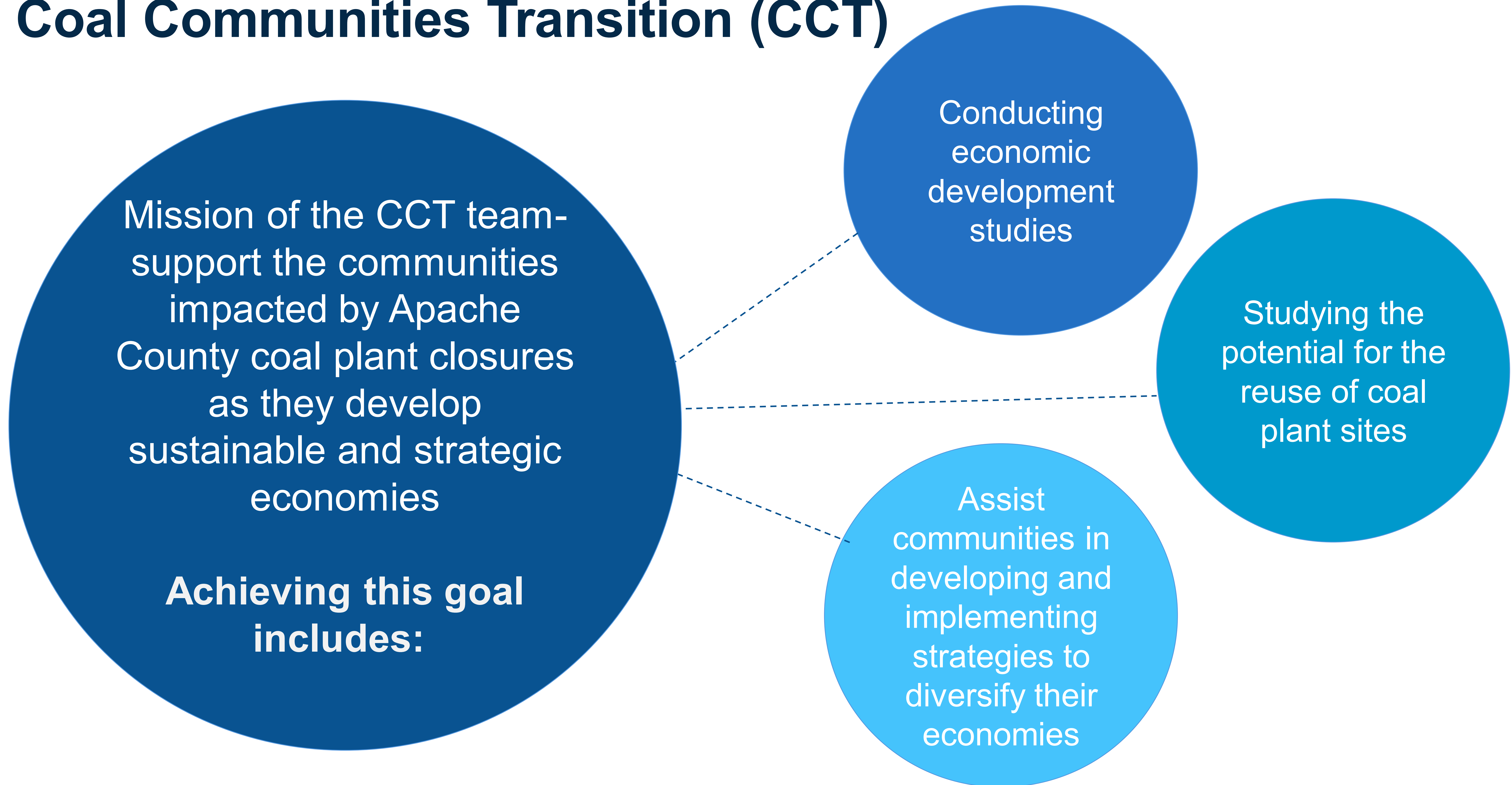


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Coal Communities Transition (CCT)



Coal Communities Transition Phases

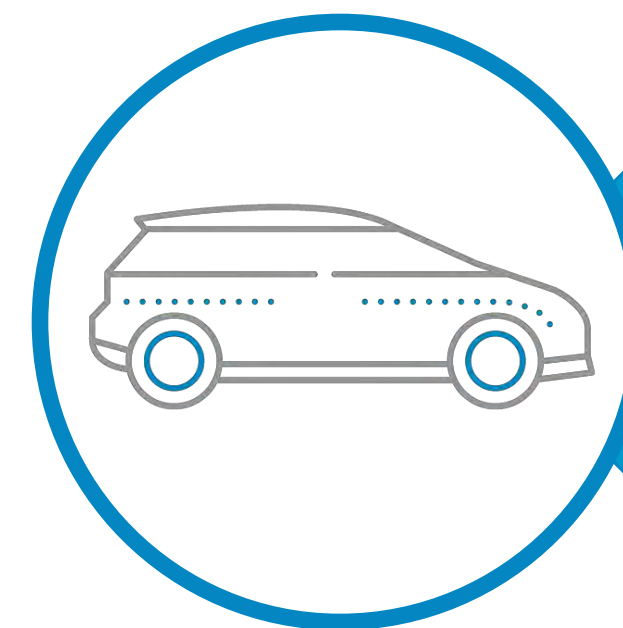


Community Engagement

Communities impacted by coal plant closures identified four critical needs as the pillars for diverse, strategic economies:



Broadband



Transportation Infrastructure

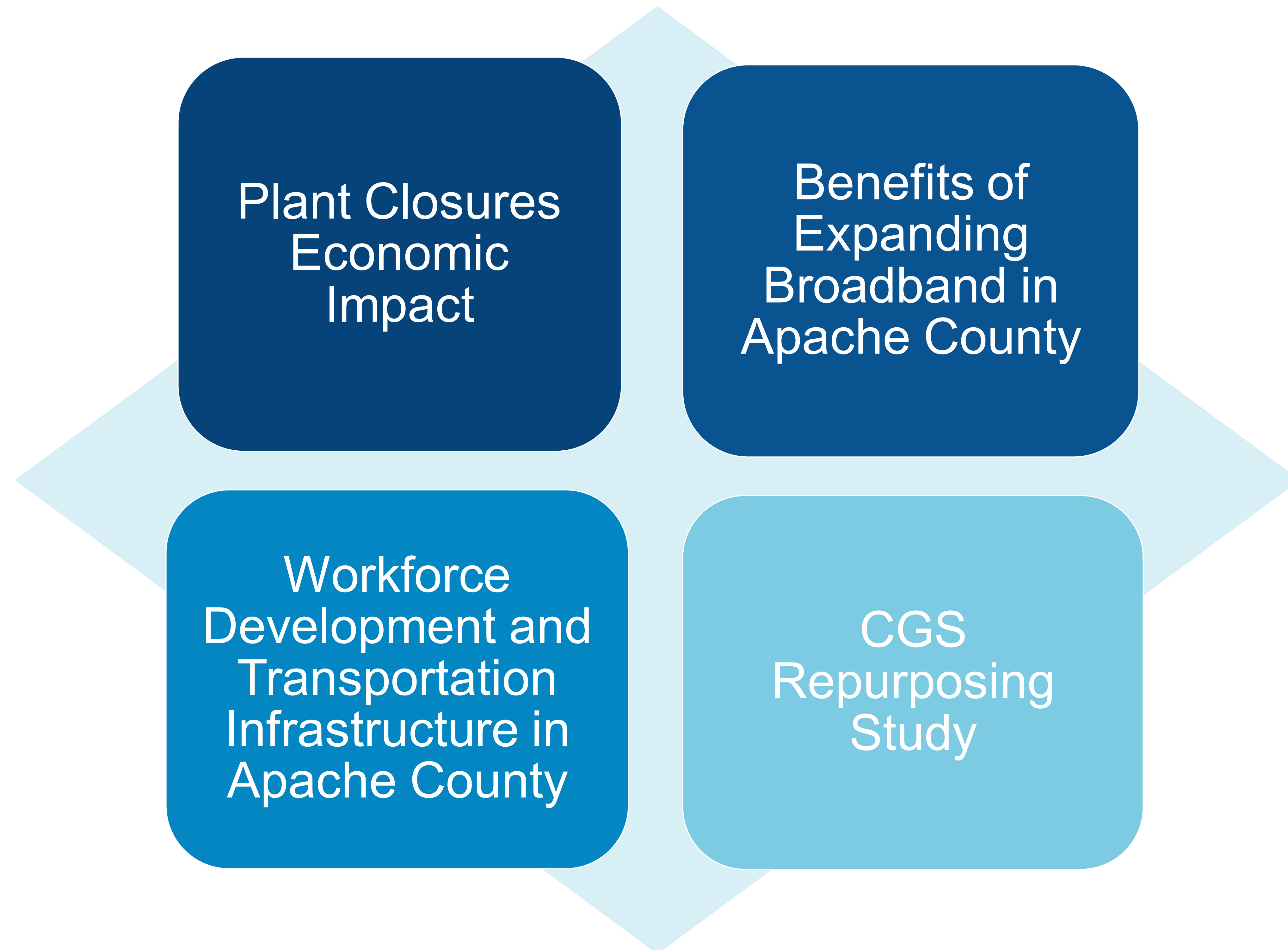


Workforce Development

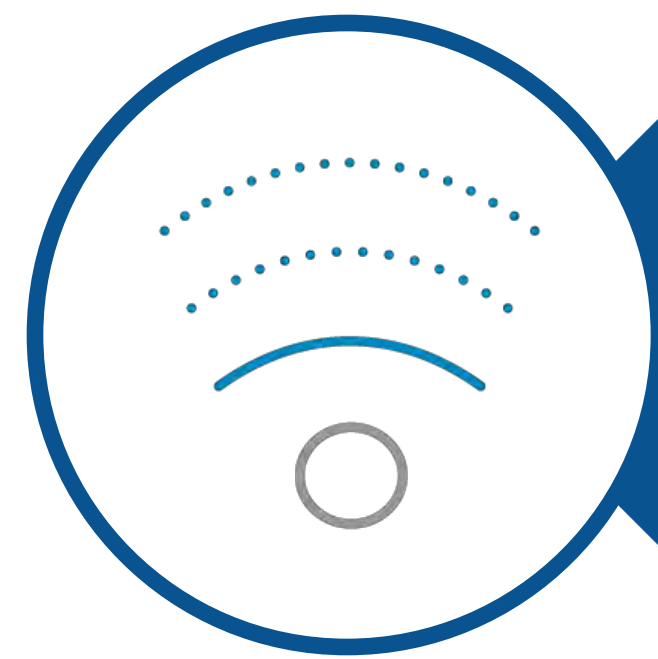


Housing

Studies and Assessments



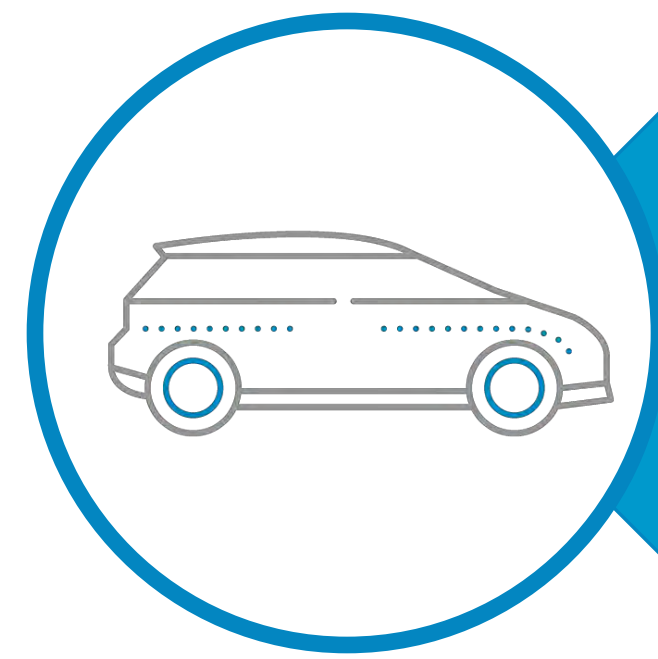
Economic Development Strategies



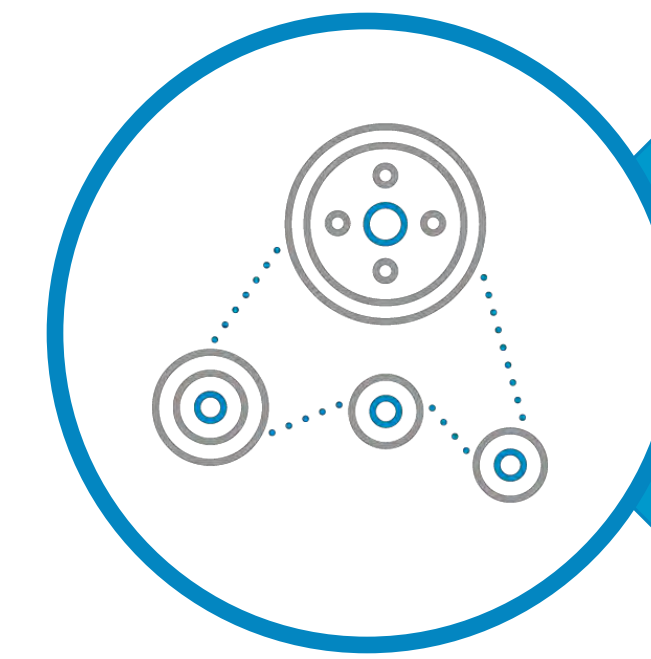
Broadband Grant



Communities Collaboration



Transportation
Planning Grant



Arizona Commerce Authority
Training



Workforce Development
Programs



Utilities Grant Program

Broadband Grant

In collaboration with Apache County, SRP and TEP:

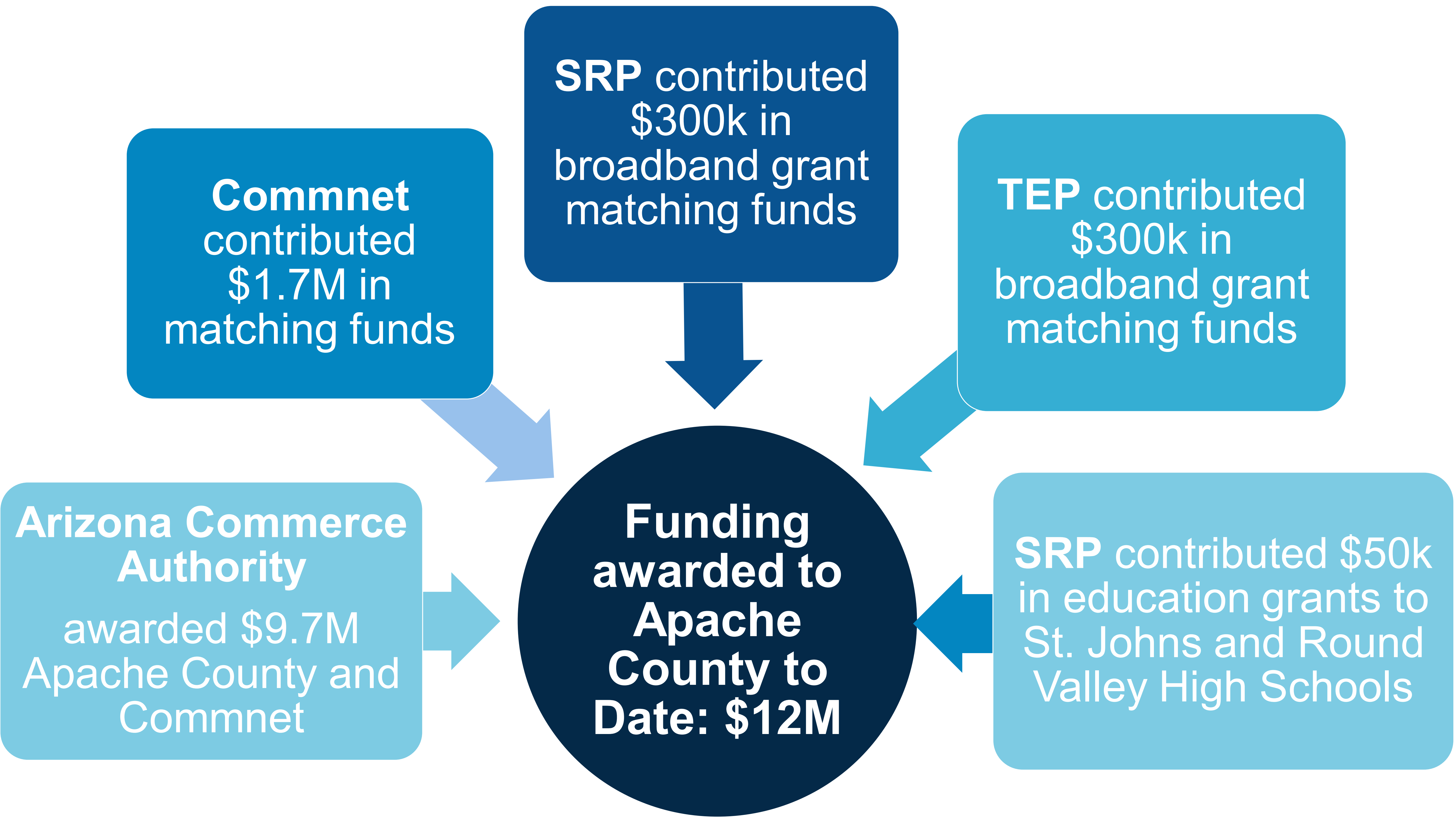


Identified the Grant Opportunity | Commissioned a Broadband Study | Contributed \$300k each in Grant Matching Dollars

- Apache County and Carrier Commnet Applied for the Grant
- Arizona Commerce Authority awarded \$9.7M to Apache County and Commnet
- Benefits Eight Apache County Communities



Apache County Funding



Community Workforce Development

City of St. Johns



Northern Pioneer College



High Schools



ROUND VALLEY SCHOOLS



CGS REPURPOSING STUDY



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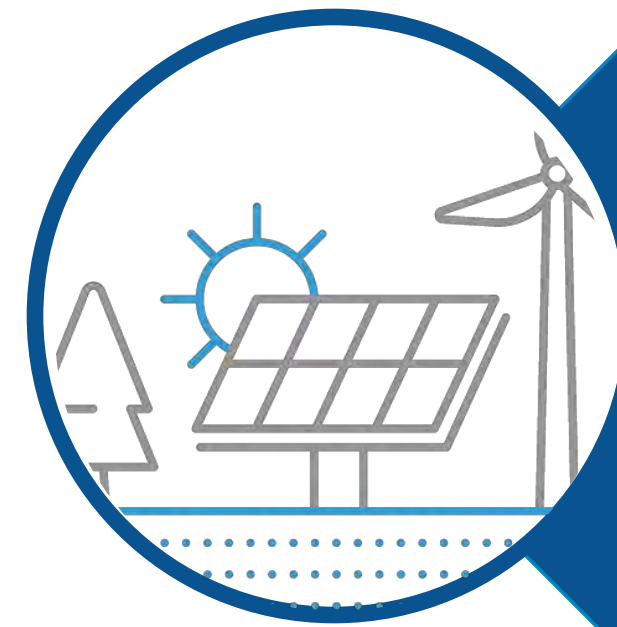
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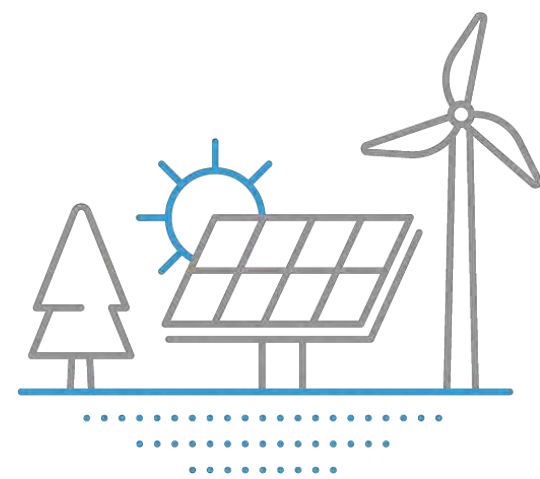
CGS Repurposing Study

“...the studies will look at options and planning for the future and is a first step in what will be a long, thoughtful and collaborative process.”

*Kelly Barr, Chief Strategy, Corporate Services
and Sustainability Executive at SRP*

CGS Repurposing Study

As part of the energy transition SRP is investigating potential reuses of the CGS site. Kiewit Engineers and Gateway for Accelerated Innovation in Nuclear (GAIN) are supporting two of the studies:



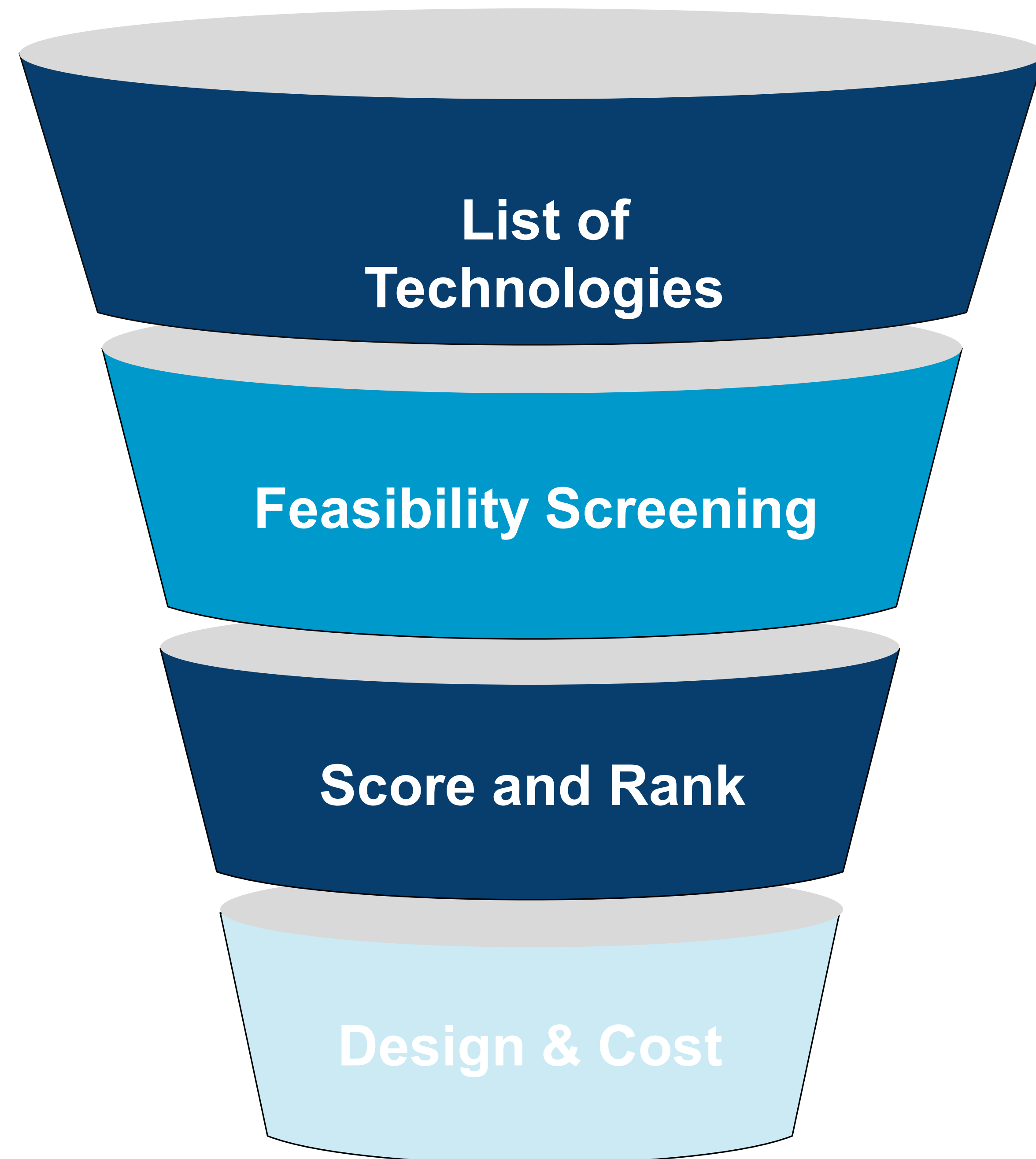
Kiewit is studying low carbon emitting generating resources (other than nuclear)



GAIN, a U.S. Department of Energy initiative, is studying the feasibility of advanced nuclear generation at the CGS site as a possible long-term option

This initial phase of the CGS Repurposing Study will be completed in spring 2023

CGS Repurposing Study



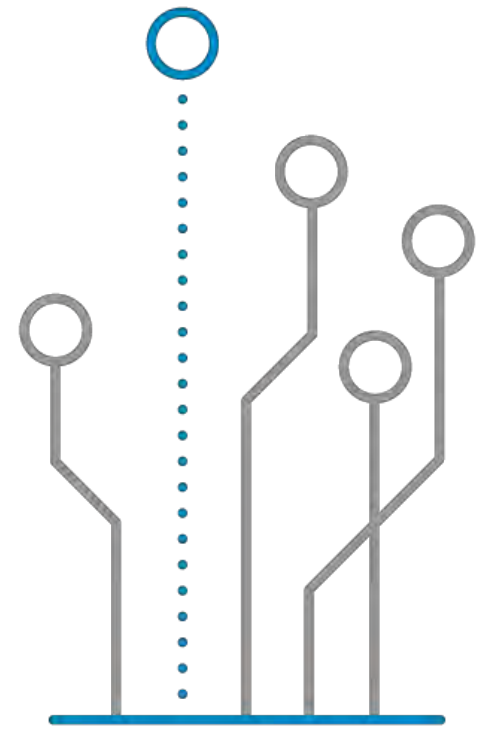
GOAL of the repurposing study is to identify technologies most promising for the site

PROCESS may occur in phases as new technologies mature

DECISION depends on SRP's future resource needs, which may not be evident until 2027 or 2028

It is possible that SRP may decommission CGS without an actionable post-closure plan

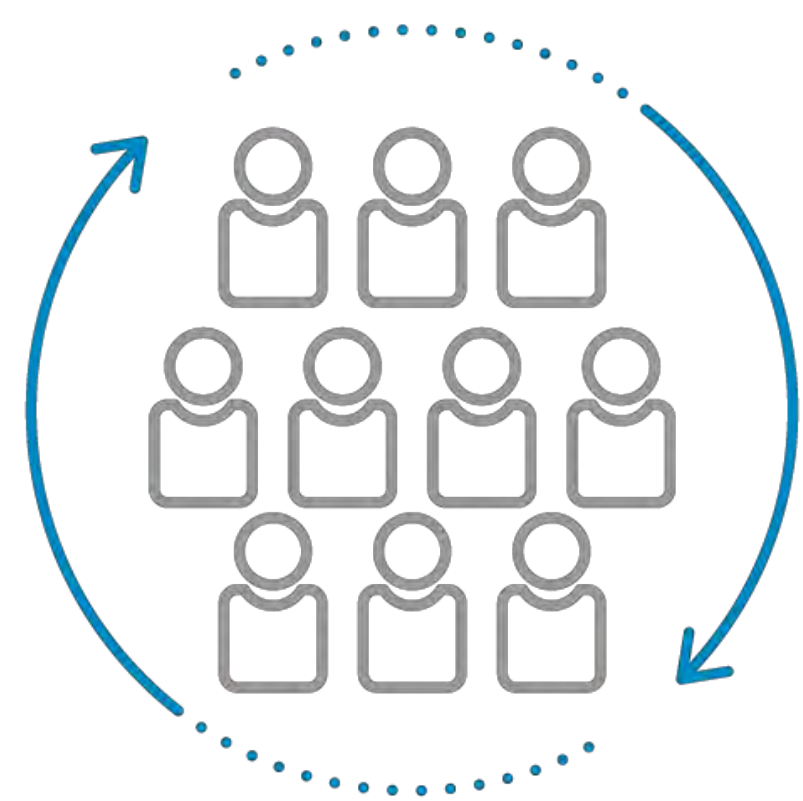
Next Steps Following the Study



- Identify Technologies



- Monitor Technologies & SRP's Resource Needs
 - Technology Readiness
 - Supply Chain
 - Resource Plan



- Keep Community Informed



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Technologies on Display

- Are a sample of the full list under consideration
- Are in various stages of development
- Must demonstrate successful utility scale deployment by the mid-late 2020s to be a viable options

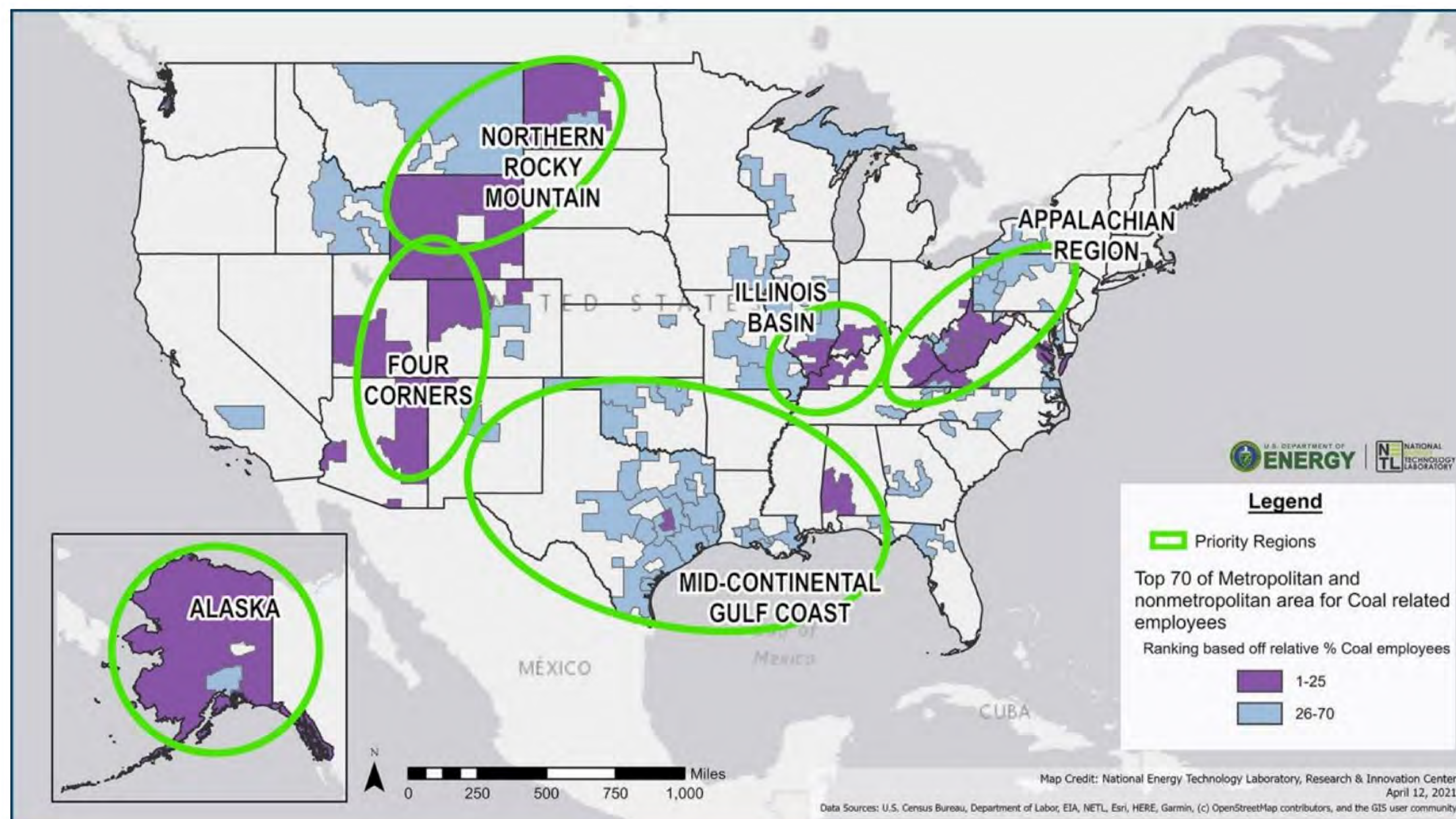
SRP will continue to monitor the progress and deployment of various technologies as part of the ongoing CGS Repurposing Study.

COAL TO NUCLEAR ENERGY COMMUNITY TRANSITIONS



Case Study Pilot (in partnership with DOE-FECM)

GAIN is in the process of scoping several case studies of specific coal sites/plants to understand the parameters that will have the most influence on moving forward with transitioning a coal site to nuclear. Scope several this year – complete 1 or 2 in the calendar year and initiate others in the future.



Coal to Nuclear Research Group

Each group is leading important projects associated with potential repurposing coal sites with nuclear technology. Use group discussions to align our individual efforts to make the most of this opportunity for the broader industry. In addition, get constructive feedback on GAIN case study pilot project.

Coronado Generating Station

Primary Objective: Assess the feasibility of transitioning from coal to nuclear;
Learnings will help 6 other coal units within commuting distance

- Siting Evaluation (leveraging EPRI's Siting Guide)
 - Assess suitability of the CGS site for a nuclear power plant.
 - Identify strengths and weaknesses associated with the site.
 - Support selection of preferred nuclear technologies (based on evaluation results).
- Economic Impact Assessment
 - Evaluate economic outcomes we may expect from (a) coal plant retirement and (b) introduction of a nuclear power plant, focusing on impacts to the community.
- Nuclear Technology Assessment (leveraging EPRI's Nuclear Technology Assessment Guide)
 - Identify and document candidate nuclear technologies that could be leveraged at CGS, building off siting evaluation results.



Coronado Generating Station
Owned/Operated by
Salt River Project
Located in Saint Johns, AZ

Advanced Fission

- Categorized in terms of capacity
 - Microreactors: <20 MWe (megawatt electric)
 - Small reactors: 20 MWe – <300MWe
 - Small Modular Reactors: use modular construction
 - Medium reactors: 300MWe - 700 MWe
 - Large reactors: > 700 MWe
- Variety of coolants (gas, sodium, salt, lead, water)
- Clean, high availability
- Diverse markets
- Improved safety, waste, security, and target economics
- 60+ private sector projects

Small Town: 1 Megawatt (MW)
Mid-size City: 1 Gigawatt (GW)
The US: 1,000 Gigawatts

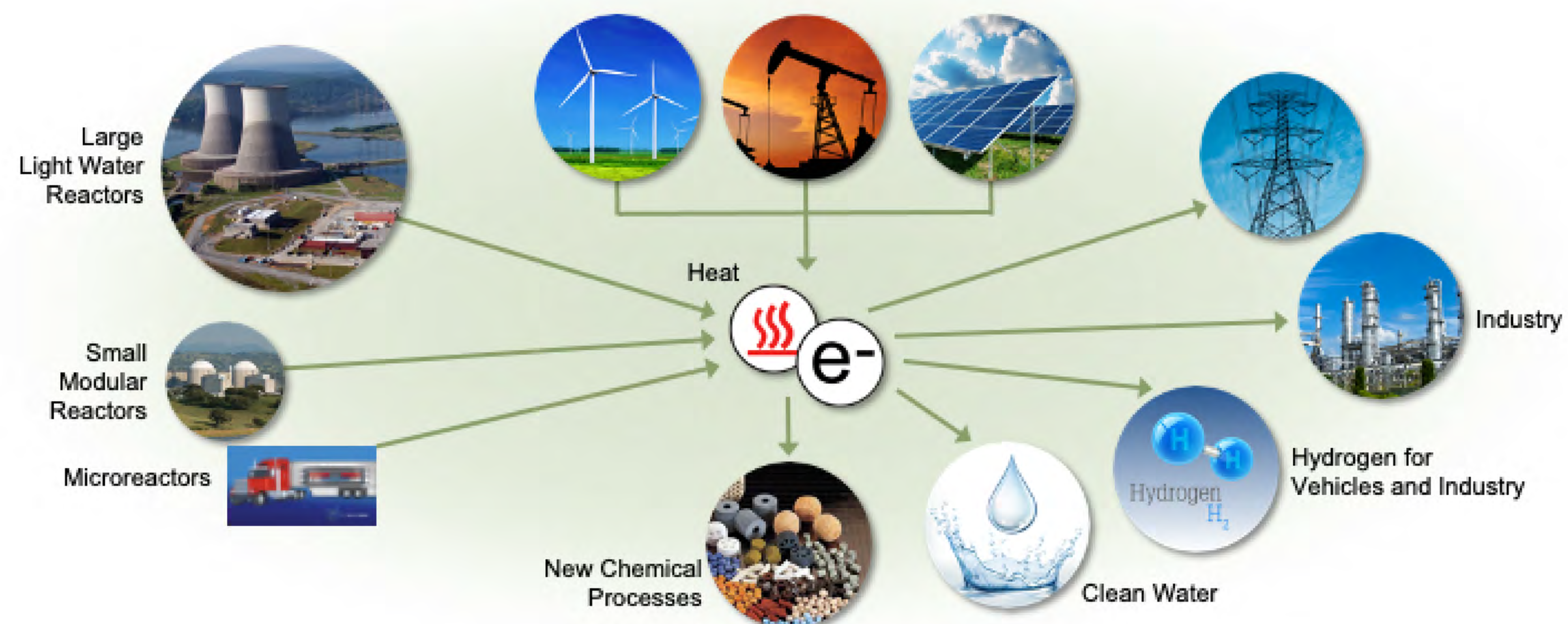


Flexible Generators * Advanced Processes * Revolutionary Design

Today
Electricity-only focus

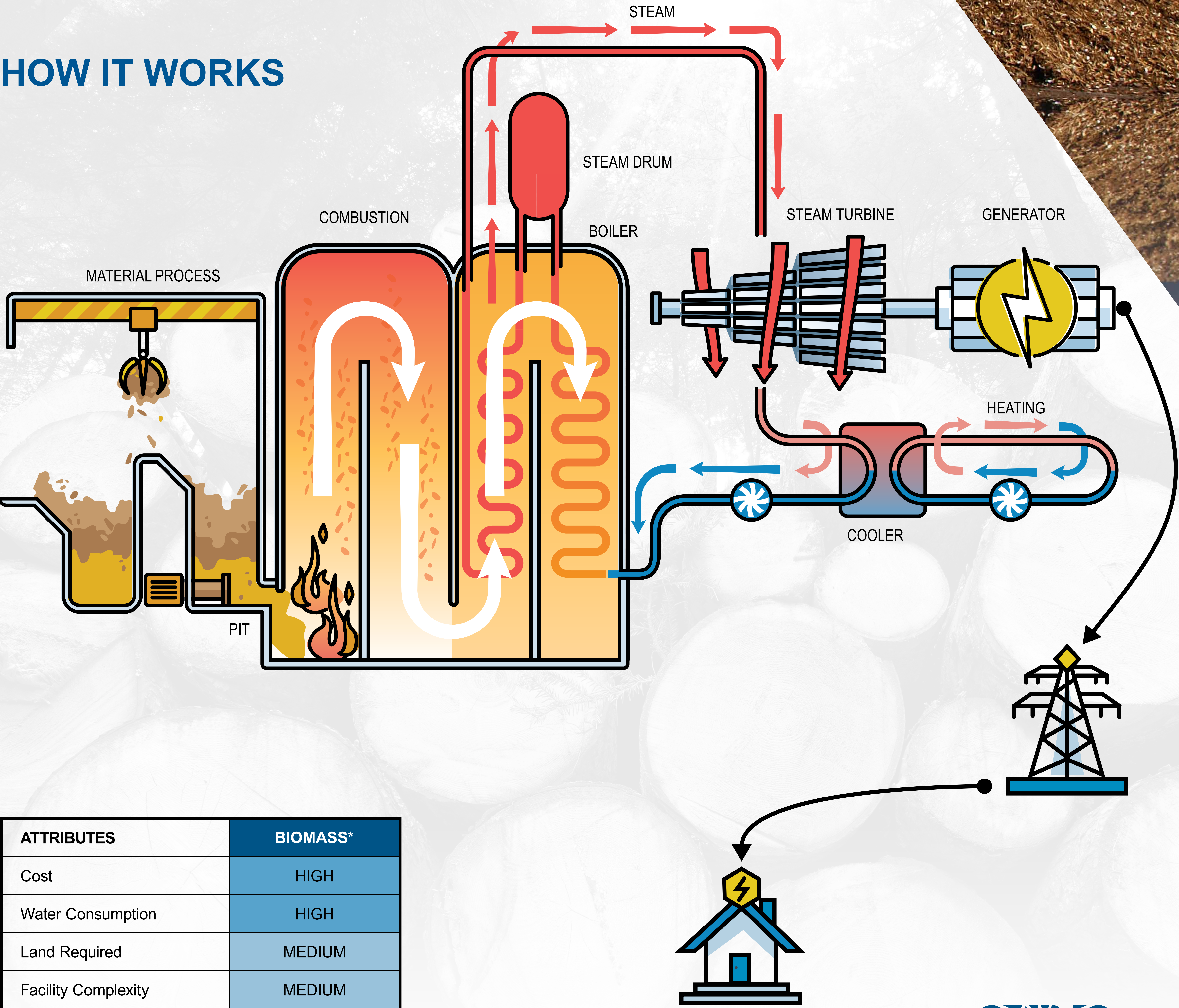


Potential Future Energy System
Integrated grid system that leverages contributions from nuclear beyond electricity sector



BIOMASS ENERGY

HOW IT WORKS



ATTRIBUTES	BIOMASS*
Cost	HIGH
Water Consumption	HIGH
Land Required	MEDIUM
Facility Complexity	MEDIUM
Power Industry Experience	MEDIUM
Generation Capability	CONTINUOUS

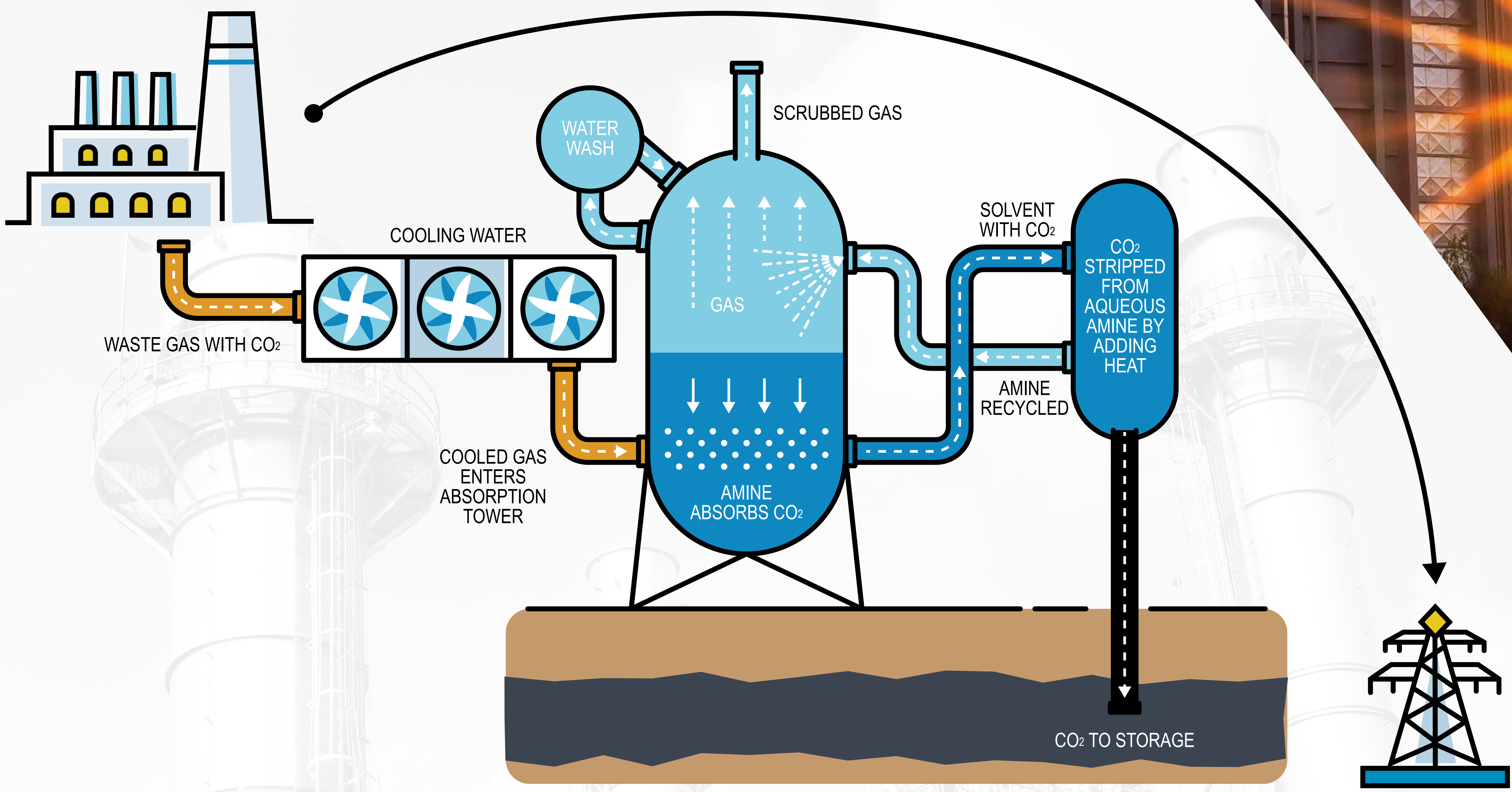
*Ratings depicted are a limited comparison of the technologies on display.



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CARBON CAPTURE

HOW IT WORKS



ATTRIBUTES	CARBON CAPTURE*
Cost	HIGH
Water Consumption	HIGH
Land Required	MEDIUM
Facility Complexity	VERY HIGH
Power Industry Experience	VERY LOW
Generation Capability	CONTINUOUS

*Ratings depicted are a limited comparison of the technologies on display.

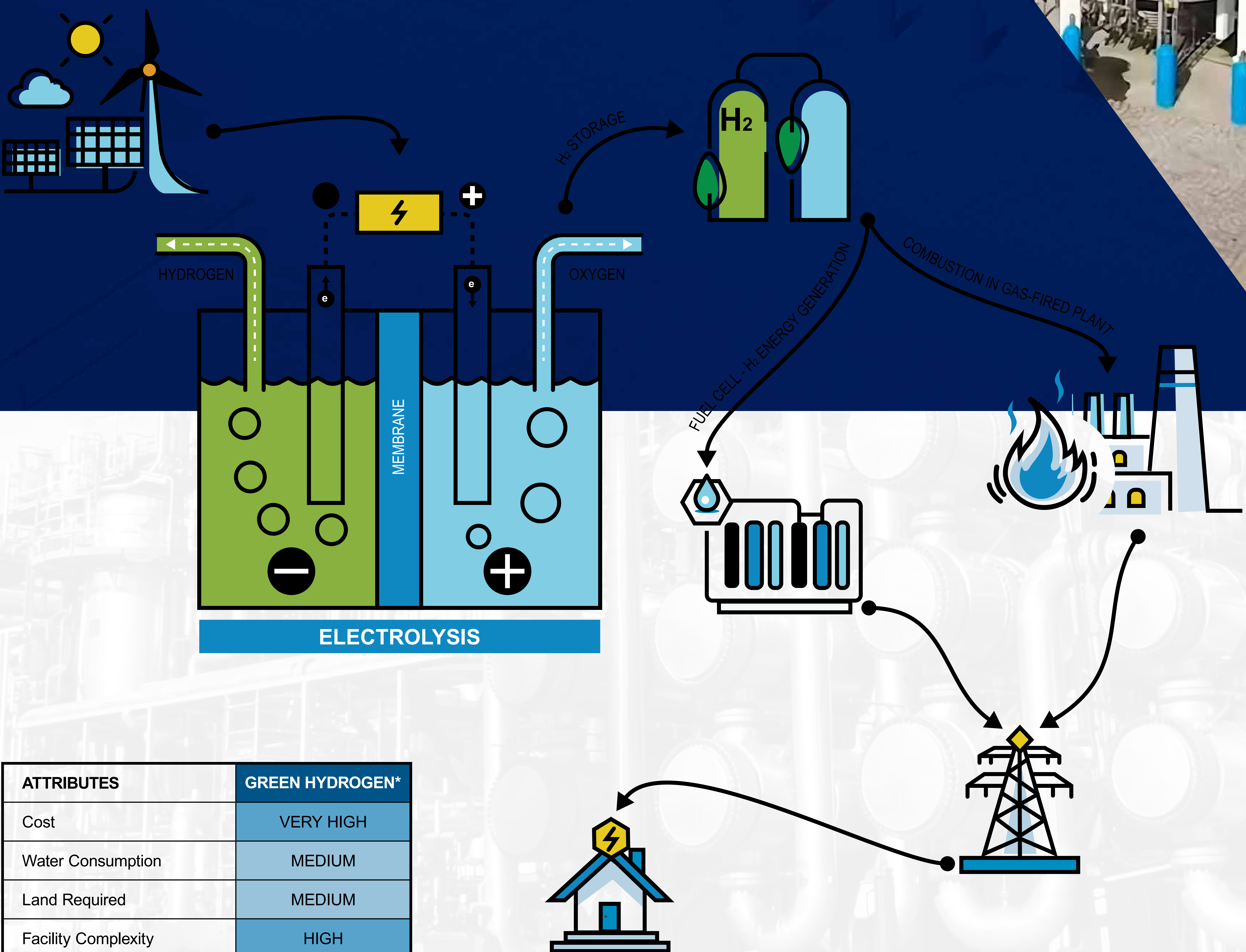


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GREEN HYDROGEN

HOW IT WORKS



ATTRIBUTES	GREEN HYDROGEN*
Cost	VERY HIGH
Water Consumption	MEDIUM
Land Required	MEDIUM
Facility Complexity	HIGH
Power Industry Experience	LOW
Generation Capability	AS-NEEDED

*Green hydrogen is just one of the hydrogen conversion processes included in SRP’s research and study. Ratings depicted are a limited comparison of the technologies on display.



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