

The Energy Playing Field

Electricity



Fuels



Industrial

Community



Tribal Energy Security & Sovereignty Through Local Self-Sufficiency

Economic Dependence

Oil Imports
Fuel at the Pump
National Grid
Coal-based Power
Water Transport
Foreign Manufacturing
Agro-Industry

“He who has the gold,
makes the rules.”



Community Independence

Self sufficiency
Food
Energy
Water

Skill Rebuilding
Local Production
Regional Sourcing

Sufficiency & Enoughness
Human Satisfaction

“Community of Cooperation”



Strategic Energy Planning

*Defining where you are,
Where you want to go,
What are your energy options, and
Developing a plan to get there.*

Geography of Strategic Energy Planning

What energy-consuming buildings & facilities are in place?

What is the geographic layout?

Does the Tribe have a Land Use Plan?

What new projects are in the planning stages? What? When?

Geography of Strategic Energy Planning

Draw Individual Tribal Maps

Infrastructure

- Reservation or community boundary
- Mountains/hills
- Roads (Primary, Secondary, Rail)
- Tribal industrial activities (sawmill, sand & gravel, coal, ...)
- Key community buildings (casino, hotel, C-store, school, gas stations, ...)
- Residential areas/houses
- Power lines, sewage treatment, solid waste, natural gas, water dams

Lands Usage

- Agricultural areas, farm, pasture, feed lots
- Forest lands, range lands, protected areas

Hydro

- Rivers & Lakes
- Water supply lines or wells

Yellow Arrows in Direction of Energy Flow—

- Electricity
- Natural Gas, Propane, Fuel Oil
- Gasoline & Diesel

Tribal Strategic Energy Planning

Tribal Objectives

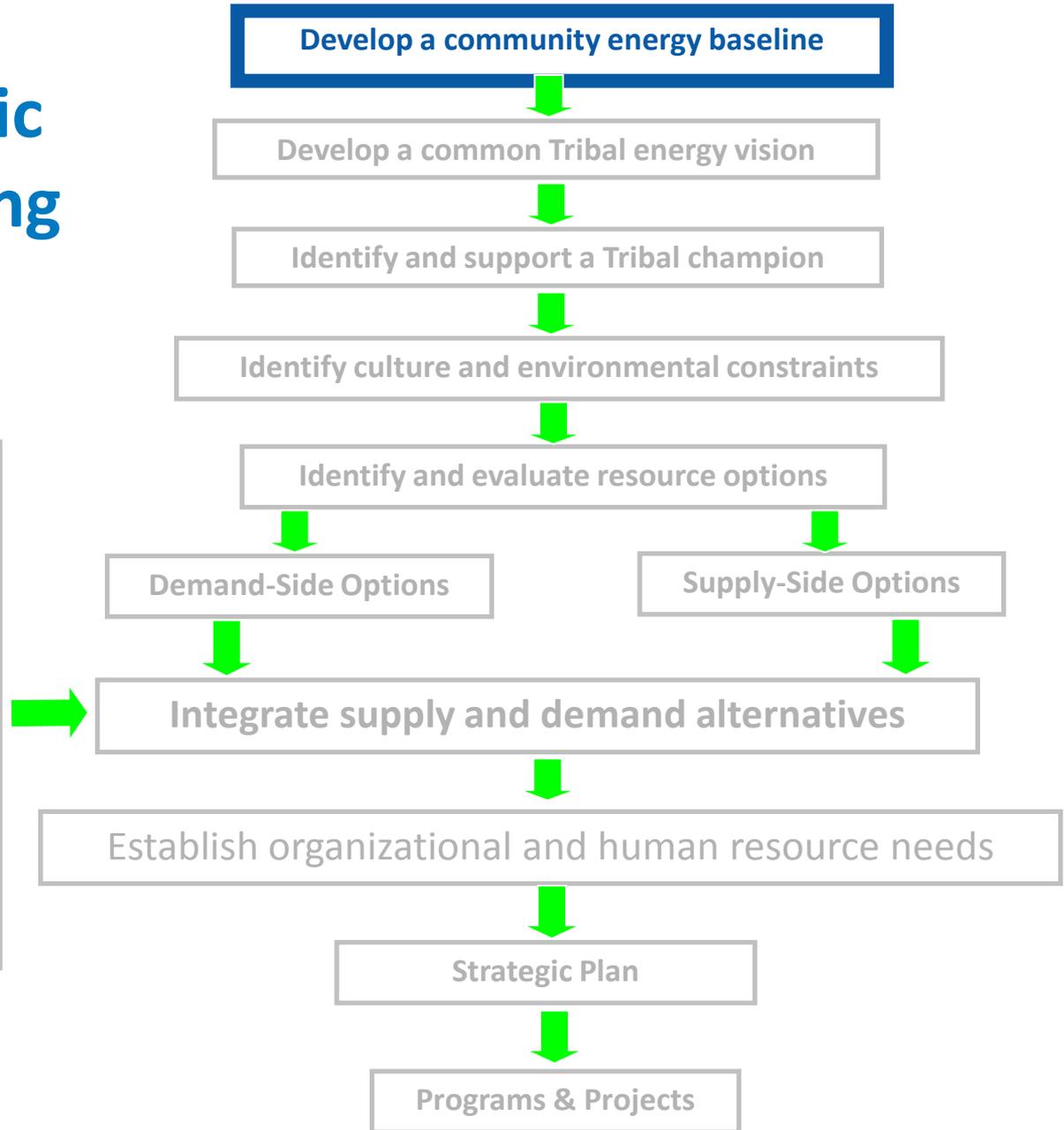
- Energy Reliability & Security
- Off-Grid Electrification
- Minimize Environmental Impacts
- Supply Diversification
- Use of Local Resources
- Economic Development
 - Jobs
- Build technical expertise
- Respect for Mother Earth
 - Others??



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Develop a community energy baseline



Community Energy Audit

- All individual energy flows, in detail
- Buildings, Transportation, Agriculture, Water

Forecast of New Loads

- Markets, Coops, Housing, Lodging, Casino, Warehouse

Details of current Service Providers

- Who, where, how much, tariffs, level of cooperation
- Electric, Gas, Propane, Wood
- Load profiles, in detail

Local Energy Supply Options

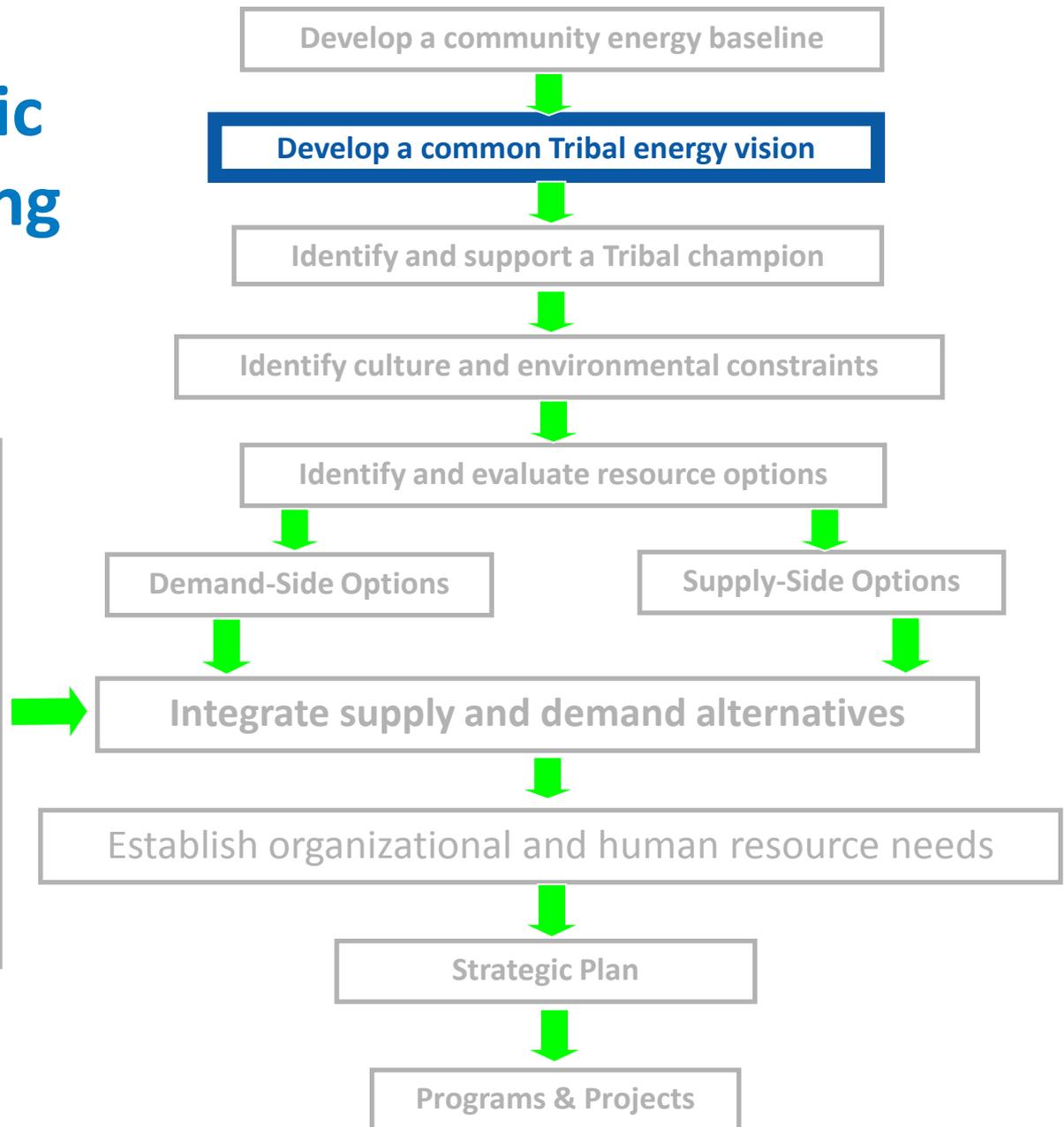
- RE and fossil fuel inventory

Add it all up, categorize by load type, quantify load growth

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Develop a common Tribal energy vision



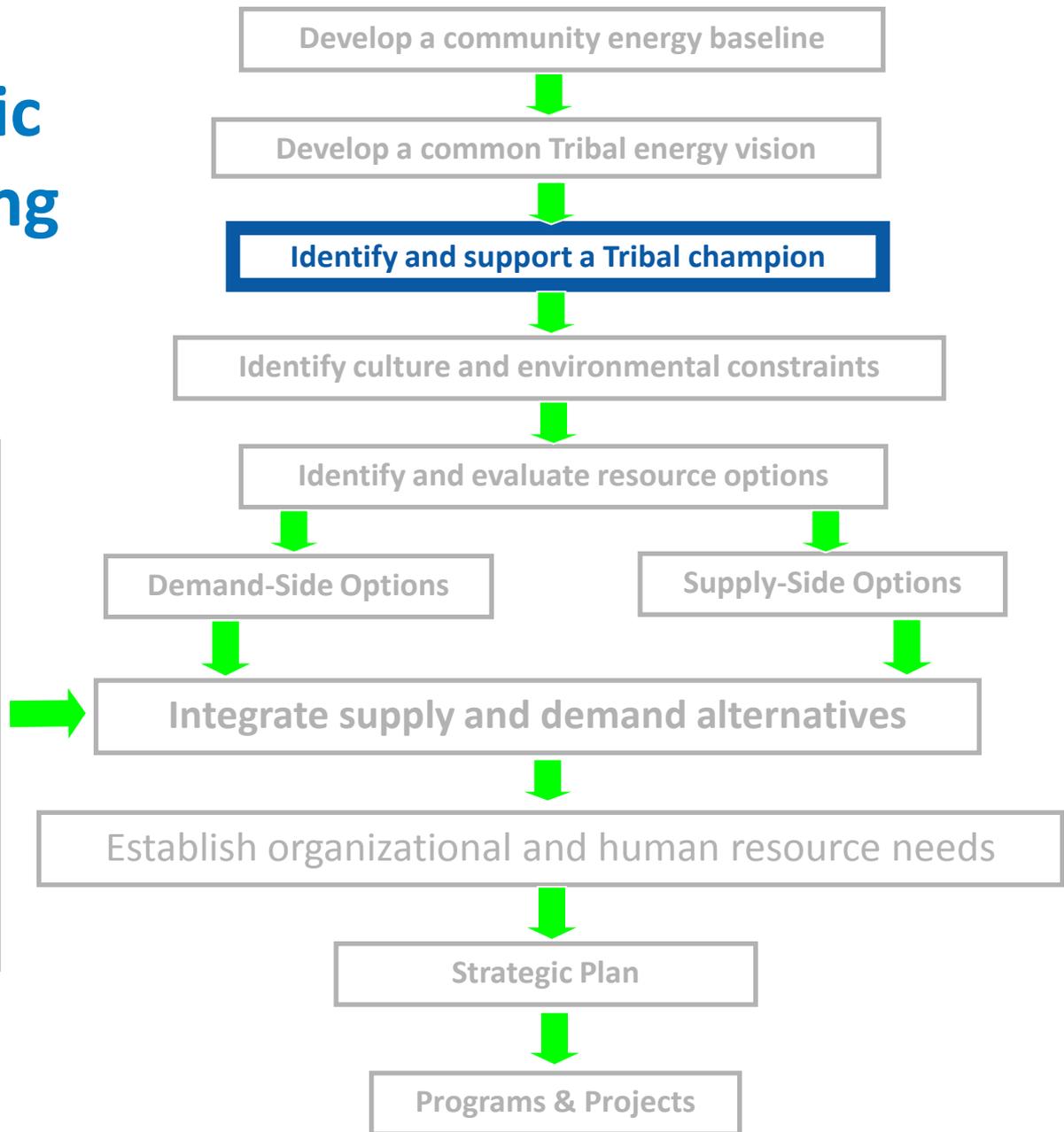
- Place a “marker” on where the tribe wants to be – in 10, 20, or 30 years
- A statement, or resolution, approved by the Tribal Council following input from broader tribal community
- The vision sets clear direction, but is not too prescriptive (where not how)

Draft a Vision Statement

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Identify and support a Tribal champion



A tribal champion (or team) is key – this individual or, more likely, team must be empowered to:

- explore the range of supply & demand options,
- facilitate tribal consensus,
- lead the strategic energy planning process forward,
- make recommendations to Tribal Council, and General Council

What are the challenges you face in your community to establishing a tribal energy champion or team?

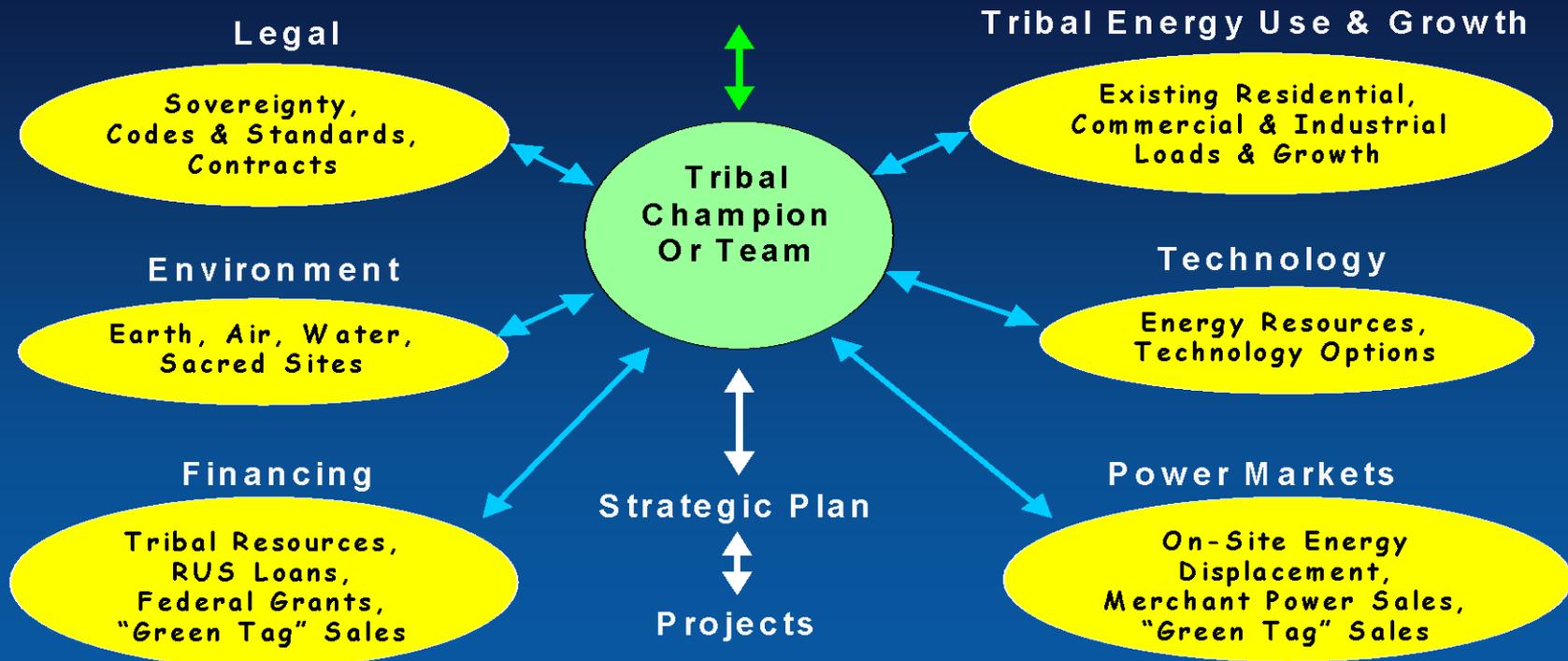
Establish organizational and human resource needs



How do you want to make it happen?

The Tribal Energy Development Challenge

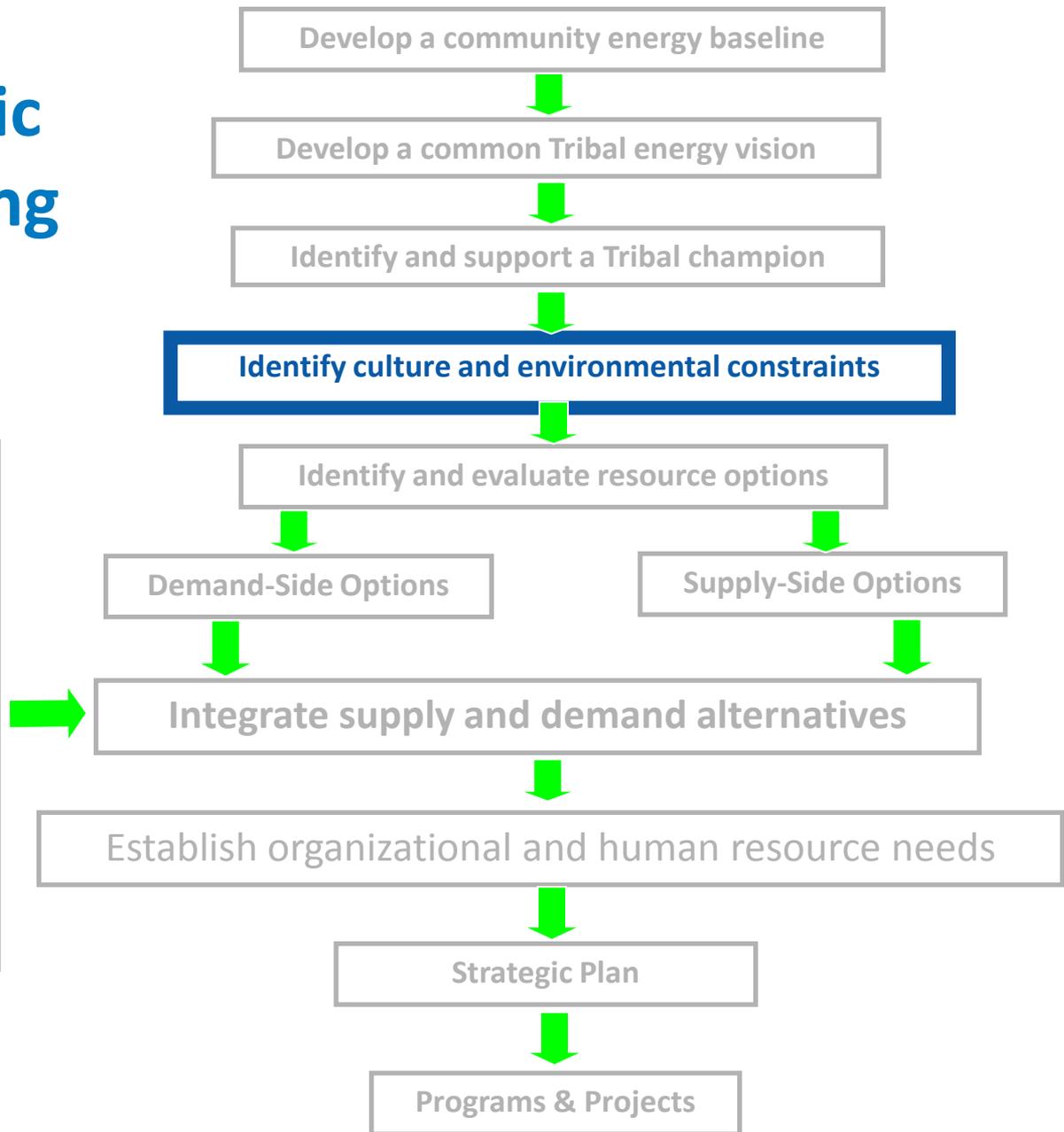
Tribal Council



Tribal Strategic Energy Planning

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Integrate culture and environmental constraints



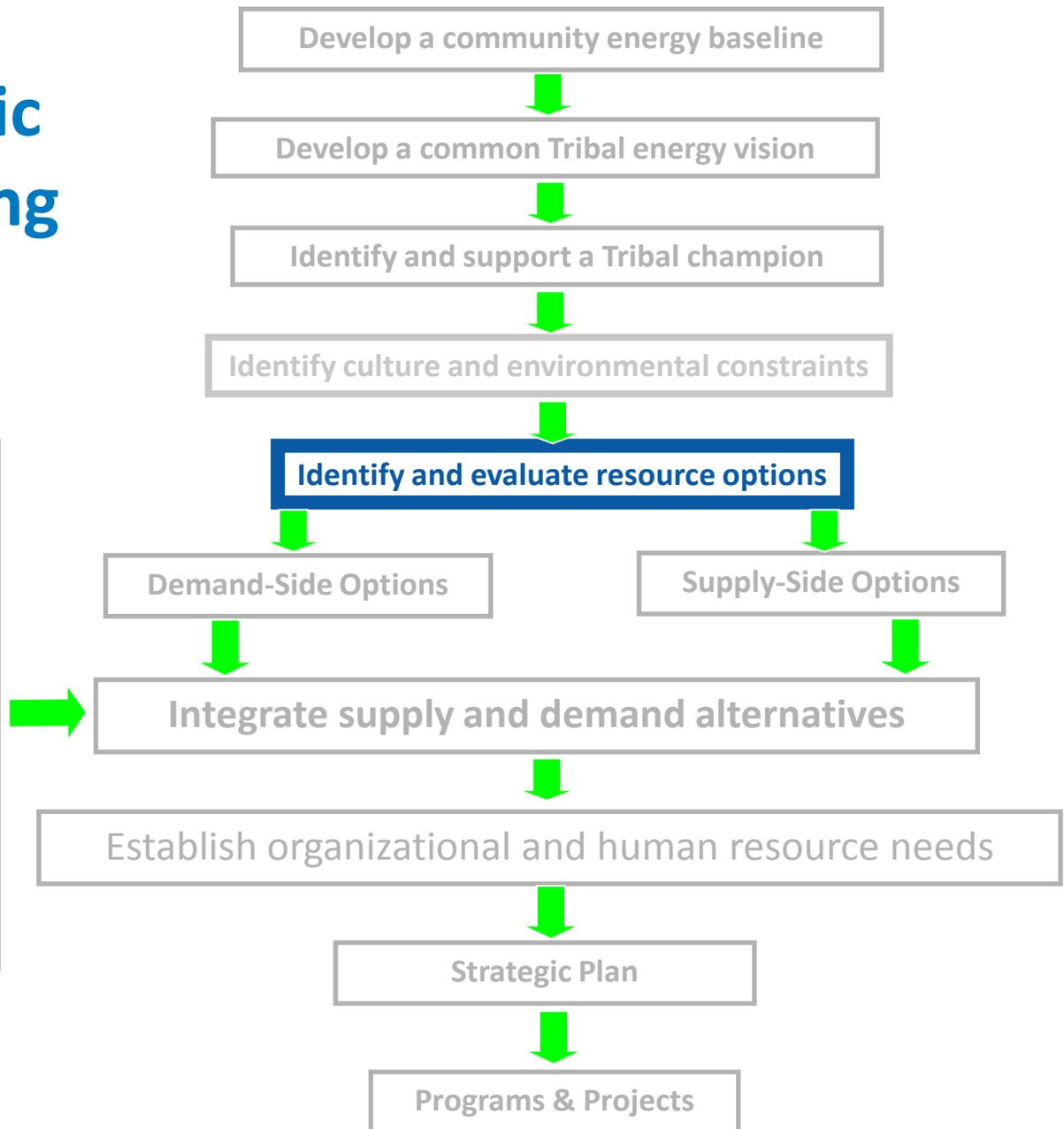
- Natural Resource Valuation
 - Water and Air
 - Wildlife Habitat
 - Forests, rangelands, wetlands, other
- Technology Effects
 - Emissions, Aesthetics, Noise
- Economic Development Trade-offs
- Cultural Impacts – (Sacred Sites, Plants, Burial Grounds)
- Tribal Impact – Community & Government
- Other Considerations

Identify sensitive sites

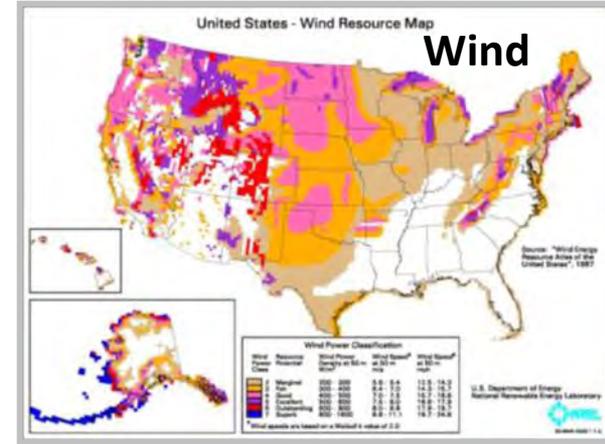
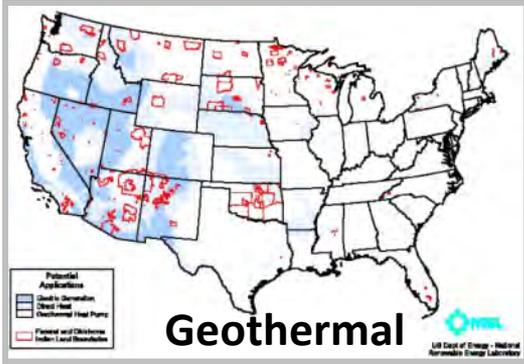
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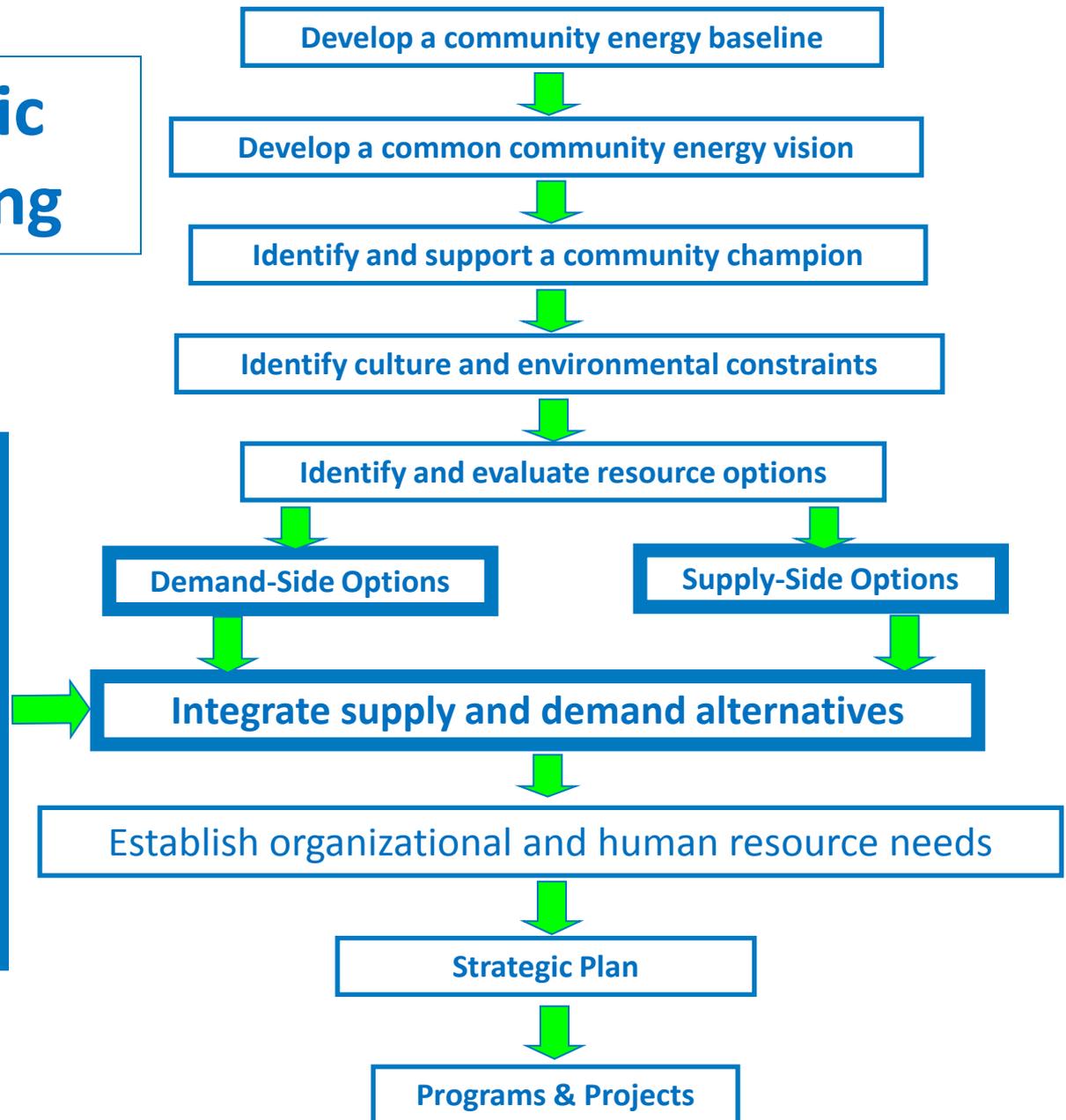
Renewable Resource Options



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Establish implementation program & projects

Characteristics of a Solution

- **Rapid**
- **Technically & Institutionally Sustainable**
 - **Maximize Coordination**
 - **Politically Feasible**
- **Attracts Financing, Capital, Sweat Equity**
 - **Reinforces tribal enterprises**



Opportunities & Strategies

- Tribal utility formation
- Strategic industry partnerships
- Tribal cooperatives
- Education



Barriers Identification

- Financing
- Human Capacity Development
- Organizational Development
- Tribal Laws and Regulations
- Clear Decision Making Process
- Stable Leadership

Where are you now?

What are the Projects that you can identify?

What Organizational Strategies should be pursued?

What Barriers do you foresee?

How can you build from the EECBG Platform?