Who we are:

The Strategic Development Council (SDC) of the ACI Foundation (a subsidiary of the American Concrete Institute) is a group of top-level executives from all facets of the concrete industry committed to accelerating technology acceptance within the concrete industry.

What we want to achieve:

The SDC identified concrete wind turbine towers as an industry-critical technology for the concrete industry. SDC then set a strategic goal that concrete be positioned as a durable, serviceable, and widely accepted material for the construction of towers for wind turbines by providing:

- The technology necessary for design and construction of site-cast and precast concrete to expand the market for concrete towers;
- An accelerated procedure to design and certify concrete tower systems; and
- Certification of tower designs and fabricators to assure safety and a high level of reliability.

For more information on SDC’s effort on accelerating technology acceptance and how you can get involved, contact:

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Why concrete?

For towers at and beyond a 100 m (328 ft) hub height, concrete or concrete/steel hybrid towers can be more cost-effective than steel-only towers, as they allow for:

• On-site or off-site component fabrication;
• Site assembly with fewer fatigue critical joints;
• Enhanced dynamic performance;
• Reduction of foundation volume;
• Lower maintenance costs inherent with concrete as the construction material;
• Increased service life due to the high fatigue resistance of concrete; and
• A more robust tower base that can be designed to accommodate potentially heavier turbines in the future.

Achieving the goal:

SDC has formed an Accelerated Technology Implementation (ATI) team to develop support for a concrete tower market for the U.S. wind industry. This will be facilitated by:

• Bringing the wind and concrete industry together;
• Establishing a framework for the development of a concrete tower market that fosters innovation and fair competition;
• Developing design standards, practice manuals, and plant qualification programs toward an accelerated certification of concrete towers in the U.S.;
• Providing knowledge about concrete materials, structural design, and construction to tower designers and fabricators; and
• Identifying and supporting research needs to close knowledge gaps.

Industry support:

The SDC’s ATI team will endeavor to engage participation of many concrete industry-related organizations and partners from the wind industry to assure that the technology developed will serve the needs of concrete tower providers and the needs of the wind energy market.

Organizations that contribute directly are:

• American Shotcrete Association
• American Society of Concrete Contractors
• Berger ABAM
• Concrete Reinforcement Steel Institute
• North American Ready Mix Concrete Association
• Precast Concrete Institute
• Thornton Tomasetti

What's next?

We look forward to discussing the next steps with you or your organization and how the concrete industry can cooperate with the U.S. wind industry. We have a mutual interest in advancing both of our industries, which will provide for the next generation of wind tower structures in the United States.