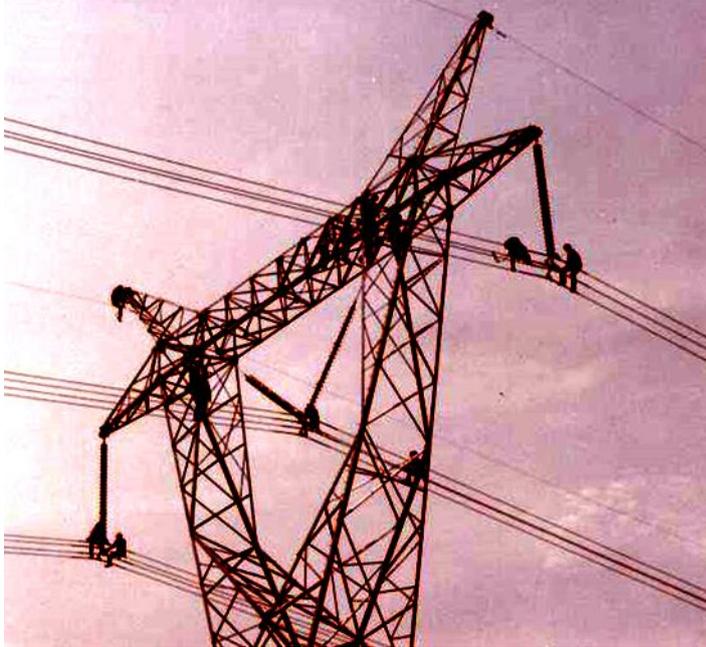


Engineering and Technical Consulting Services



APT possesses specific technical expertise in the following areas:

- Renewable Energy
- Electric Power Generation Facilities
- Electric Power Transmission and Distribution
- Environmental Engineering, Auditing and Remediation
- Telecommunication Networks
- Energy Auditing and Energy Management

Key personnel of the company have many years of experience in the planning, design and construction management of electric power systems. *APT* provides a variety of technical services on its own and is capable, in cooperation with other companies with whom it maintains relationships, of completing virtually any type of project for the electric power industry.

Specific types of services offered include the following:

Biomass Power Generation

APT has extensive experience with biomass as a fuel for power generation in Southeast Asia. We are familiar with a wide range of technologies involving thermal processes, as well as gasification. Fuel types, with which we have been involved, include rice husk, rice straw, corn cobs, corn stover, cassava rhizome, bagasse and orchard & forestry waste.

Solar PV

APT's capabilities for solar PV power generation projects include a complete range of services to take grid-connected and stand-alone projects from conception to completion. We have experience with larger-scale Greenfield projects, as well as smaller rooftop installations and all major types of panel technologies.



Hydroelectric Engineering

Hydroelectric engineering needs are constantly evolving. There is a new emphasis throughout the world on independent power production, optimization of existing resources and retrofits to outmoded plants. *APT* is a versatile engineering firm with access to specialized expertise in designing and modifying small hydroelectric power plants to keep them as productive as gravity and circumstances permit.



Electric Power Transmission Lines

APT provides a full range of design engineering services to utility customers for all types of transmission facilities. *APT* has personnel experienced in all phases of transmission projects including preliminary engineering, studies and economic analyses, detailed design, preparation of design documents and construction management through 500 kV.

Distribution Lines

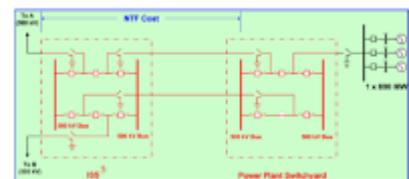
APT offers complete electric power distribution design and construction support services for overhead, underground and other varied types of low-voltage systems for applications ranging from industrial plants to congested urban settings to remote, mountainous areas

Substation Engineering

APT's substation and switching station design methods range from the application of standard designs with only slight modifications to custom-tailored conceptions and designs to meet special project considerations or client needs. Flexibility and broad experience allow us to consistently arrange our services to match client requirements and procedures. Through constant quality communication, *APT's* substation personnel effectively become part of the client's organization.

Power System Planning and Special Studies

APT is capable of undertaking a variety of studies to help our clients' planning and special needs. Whether the need is for the analysis of an entire power system or only one element of an operation, *APT* can document alternative courses of action and make comprehensive recommendations to guide our clients in making informed decisions.

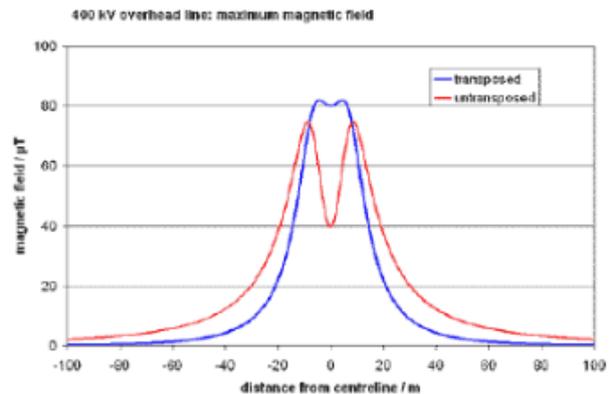


APT has particular expertise in grid connection studies for renewable energy and other distributed generation projects. Based on site and available local transmission or distribution network information, APT will assess potential network-imposed constraints on a potential project and outline any feasible alternatives for dealing with those constraints. Such studies may be cursory or very detailed depending on project needs and available network data.

In addition to power system planning studies, APT offers the following specialty services:

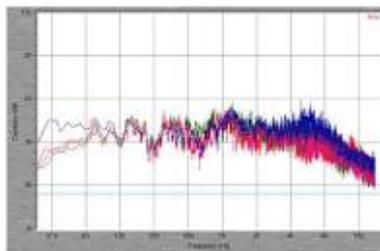
- Magnetic Field Measurement and Studies

APT provides measurements of the EMF environment in the vicinity of transmission lines, substations and individual items of electrical equipment. Studies include assessment of possible impacts of electrical and magnetic fields and recommendations for mitigation where appropriate.



- Grounding Measurements and Studies

APT provides measurements of earth resistivity for the design of grounding systems to protect personnel, buildings and equipment from the effects of electrical faults and lightning. Earth resistance measurements and reports are available for new installations as well as older installations where the effectiveness of grounding may have deteriorated with time and require upgrading.



- Audible Noise Measurements and Studies

Measurements of the noise environment surrounding generating plants, substations and other types of facilities are provided to verify compliance with local regulations as well as to document actual “before and after” sound levels in the vicinity of new projects.

- Infrared Thermographic Services

APT has the ability to inspect facilities and equipment for those who seek to proactively address potential problems with electrical distribution systems. Whether commissioning new equipment or undertaking preventive/predictive maintenance, APT’s IR survey services can safely save time and reduce the likelihood of costly, unscheduled interruptions.

Insurance Provider and Loss Adjuster Reviews

APT provides assistance to insurance companies and loss adjusters with design reviews, operation and maintenance assessments and incident evaluations. We have provided such services for

conventional and renewable generating plants, transmission lines, substations and manufacturing plants.

Transactional Due Diligence

APT offers technical support to financial institutions, legal firms, buyers and sellers for mergers, acquisitions and similar types of transactions. We provide evaluations of existing designs, operations and maintenance, staffing, operational efficiencies, operational management, and equipment conditions as well as assessment of operational and other types of risks associated with any particular asset.

Communications and Telecommunications

In the communications area, *APT* offers state-of-the-art digital and analog technology to implement virtually any communication system including those involving or utilizing the following types of technology:

- Outside plant cable networks
- Fiber optic networks
- Utility communications
- Smart grid services
- IT networks
- Equipment commissioning



Construction Management

APT supplies construction management services both to projects designed and engineered by us and to projects designed by others. We provide a full range of construction management services to get a project from start to completion on time and within budget while keeping our clients aware of all that we do.

Project Management

APT's project management (PM) system is structured to ensure that our projects are completed on schedule and within budget. Projects are reduced to distinct tasks and subtasks which can be independently defined, scheduled, budgeted, tracked and managed. The purpose of the PM system is to provide accurate information quickly and easily. This enables project owners, managers and engineers to make accurate, informed decisions without delay.