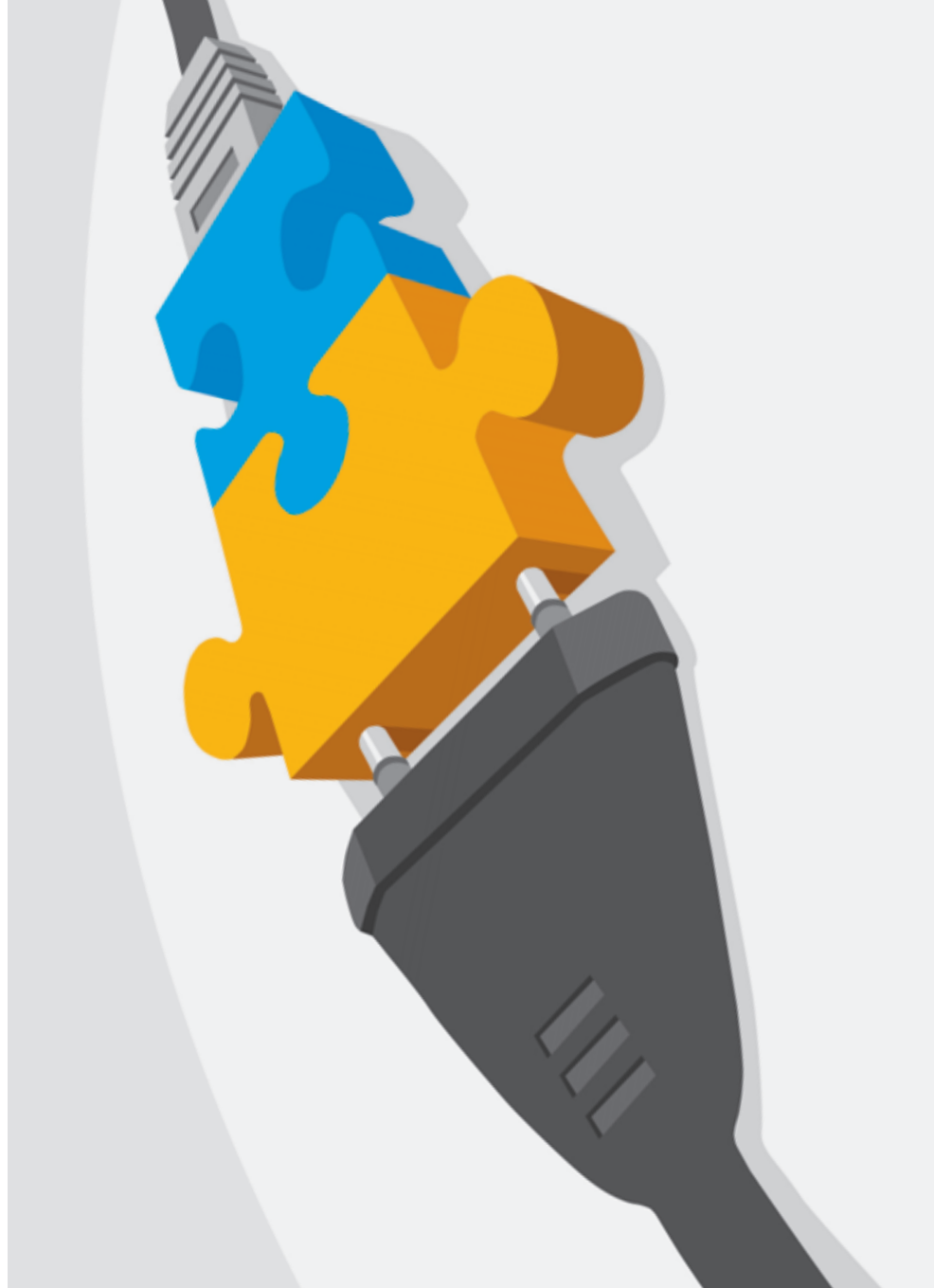




Choose certainty.  
Add value.



Get Ready for the Smart Grid!  
智能电网来了！

TÜV SÜD Group

TÜV®



## Smart Grid: power from various intelligently linked sources

Eco-friendly, efficient and extremely flexible: the future of electricity supply is Smart Grid. Instead of drawing power from several centralised suppliers, consumers can also feed electricity into the public network – for example from solar power systems or cogeneration units. The “Smart Grid” intelligent network system reliably regulates the optimal supply of electricity between suppliers and consumers.

### The challenge: smooth communication through IEC 61850

The various components in the Smart Grid need to be perfectly coordinated to ensure that the decentralised, cross-regional electricity grid functions without fail. For this reason, IEC 61850 provides the corresponding standardisation guidelines. TÜV SÜD checks electricity supply systems for their conformity to standards and their interoperability, for the benefit of both users and producers. In doing so we always strive to find the most economical solutions and the required integration in existing infrastructure.

## 智能电网：智能联接来自不同能源的电力

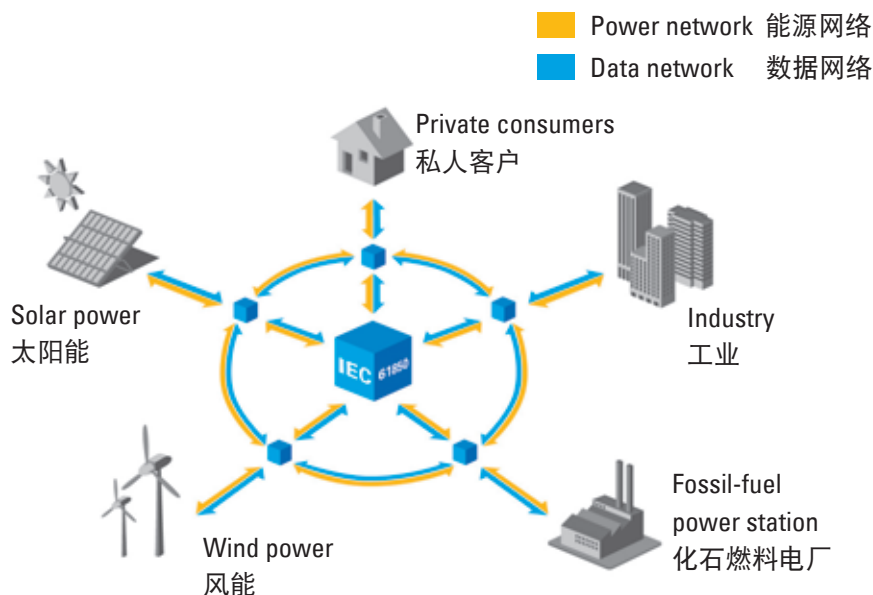
环保、高效、灵活多变：电力供应的未来就是智能电网。客户不再需要从屈指可数的几家集中供应商那里获取电力，而是可以自行将电力输入公共网络当中——比如说通过对于太阳能或者热电联产装置的使用。“智能电网”的智能网络系统能在供应商和客户之间稳定地调整电量以达到最佳状态。

### 挑战：IEC 61850带来的通讯畅通

智能电网中的各种组件都需要得到完美的协调以保证其非集中式、跨地区的电网能毫无障碍地运作。IEC 61850为此提供了标准化指南。TÜV南德意志集团会同时考虑电力生产者和使用者的利益，检查电力系统的交互性，以及是否满足标准要求。通过这种方式可以对现有的基础设施进行必要的整合并找到最经济的解决方法。



Stable power management through IEC 61850 recognition  
 通过IEC 61850认可的稳定能源管理



Benefits to the consumer

- Affordable electricity supply
- Greater reliability
- Improved load distribution
- Ability to manage one's own system
- A stable supply of electricity
- Protection of electrical facilities

对于客户来说

- 更便宜的电力供应
- 更强的稳定性
- 改进的负荷分配
- 管理自己系统的能力
- 稳定的电力质量
- 电子设施的保护

Benefits to the producer

- More attractive feed-in conditions
- Reduced redundant supply
- Systems more efficiently protected from technical damage
- More efficient use of storage systems
- Prevents load shedding
- Ability to react quickly

对生产者来说

- 更有吸引力的馈入条件
- 减少冗余
- 更有效的系统保护
- 更有效使用储存系统
- 防止甩负荷
- 更快速反应的能力



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### TÜV SÜD – expertise for the power networks of tomorrow

With over 600 locations worldwide, TÜV SÜD is the experienced partner of choice when it comes to integrating producer and supplier units in the Smart Grid.

#### Our services at a glance:

- Assessment of existing technologies with regard to IEC 61850-compatibility
- Preparation of an overall concept
- Component analysis to guarantee the interoperability of all systems involved
- Integration of existing infrastructures in the Smart Grid
- Identification of infrastructure data for each type of network
- Monitoring of compliance with IEC 61850-guidelines
- Individual cost-benefit analyses
- Support during the implementation of Smart-Grid-compatible systems
- Long-term support and professional training of network operators and users

### TÜV南德意志集团——专业于明日的电力网络

TÜV南德意志集团在全球拥有超过600个办事处，在协调智能电网的生产商和供应商方面是您的最佳选择。

#### 我们的服务主要包括：

- 现有技术的IEC 61850兼容性评估
- 完整概念的准备
- 组件分析以确保所有涉及到的系统的互通性
- 在智能电网中整合现有基础设施
- 对于每种不同网络的基础设施数据的识别
- 对于是否与IEC 61850兼容的监控
- 单独的成本效益分析
- 在智能电网系统的应用中提供支持
- 对于网络操作者和使用者的长期支持和专业培训

## About TÜV SÜD

Established in Germany more than 145 years ago, TÜV SÜD is one of the world's leading technical services providers, offering knowledge services, inspections, testing, expert opinions, certification and training. Approximately 17,000 employees at over 600 locations worldwide provide technology, system and know-how optimization.

## TÜV南德意志集团简介

145年前诞生于德国，TÜV南德意志集团是业内领先的技术服务公司，为您提供资讯、检验、测试、专家意见、认证和培训服务。17,000多名员工遍及全球600多个办事处，着力为您提供技术、体系和实际运作中的优化服务。

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Shanghai ENV Lab	上海环境可靠性部	Tel.:+86 21 5048 3138	Beijing	北京	Tel.:+86 10 6590 6186
Wuxi	无锡	Tel.:+86 510 8820 3737	Tianjin	天津	Tel.:+86 22 8319 2258
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