

**Memorandum of Understanding**

**Among**

**The Edison Electric Institute**

**and the**

**U.S. Department of Agriculture  
Forest Service**

**and the**

**U.S. Department of the Interior  
Bureau of Land Management  
Fish and Wildlife Service  
National Park Service**

**and the**

**U.S. Environmental Protection Agency**

This Memorandum of Understanding (MOU) is hereby entered into among the U.S. Department of Agriculture's Forest Service, hereinafter referred to as the Forest Service, the U.S. Department of the Interior's Bureau of Land Management, Fish and Wildlife Service, and National Park Service, hereinafter referred to as Department of the Interior Agencies, collectively referred to as the Federal land management agencies, the U.S. Environmental Protection Agency, hereinafter referred to as EPA, and the Edison Electric Institute, hereinafter referred to as EEI.

**Issue Statement**

Electric utilities provide an essential service that is closely tied to our Nation's safety, economy, and welfare. In order to provide a dependable supply of electricity, utilities must manage vegetation near their transmission and distribution lines and other facilities to prevent blackouts and wildfires, which can harm people, wildlife, habitat, and property.

To meet both ecological and reliability standards, it is essential for Federal agencies and utilities to work cooperatively to streamline and expedite the management of vegetation near utility facilities, including facilities on Federal lands, in a timely and efficient manner.

## **Purpose**

The purpose of this MOU is to establish a framework for developing cooperative rights-of-way integrated vegetation management (IVM) practices among EEI, an association of U.S. shareholder-owned electric companies, Department of the Interior Agencies, Forest Service, and EPA.

This MOU is intended to provide a working framework among EEI, international affiliates, and industry associates worldwide. The EEI works closely with its members, representing their interests, and works with the Department of the Interior Agencies, the Forest Service, and the EPA to develop practical, sustainable, and cost-effective policies, procedures, and practices that will reduce risks to the environment and the public while ensuring uninterrupted electrical service to customers. These practices are intended to protect human health and the environment and may reduce fires. The Federal land management agencies, through coordination with the EPA and other Government agencies, industry representatives, and local landowners, can promote IVM and other best management practices (BMP) as part of their review of rights-of-way vegetation management plans.

This MOU is intended to facilitate the following mutually accepted goals. These goals are not listed in priority order:

1. Maintain reliable electric service to reduce damage to facilities and structures and the environment by facilitating compliance, as appropriate, with the reliability and safety standards referenced in Appendix A, including the North American Electric Reliability Council standards, which will become mandatory under the Energy Policy Act of 2005 and the Institute of Electrical and Electronics Engineers' clearance standards.
2. Improve power line safety and electric utility worker safety in accordance with the National Electric Safety Code and Occupational Safety and Health Administration standards referenced in Appendix A, which specify separation between electric lines and other objects and relevant worker safety practices;
3. Reduce the likelihood of wildfires and fire-induced interference with electric facilities by promoting compliance with the Uniform Fire Code, Urban Wildland Interface Code, and other applicable standards referenced in Appendix A;
4. Reduce soil erosion and water quality impacts within the electric utility rights-of-way and on adjacent lands by using BMPs; implementation of appropriate BMPs should be focused on erosion control during vegetation management activities and erosion control on transmission corridor maintenance roads.
5. Reduce the risk to human health, natural resources, and the environment by promoting the use of IVM BMPs for maintaining vegetation near transmission and distribution lines, such as the wire zone/border zone method, taking into consideration the American National Standards Institute A300 and Z133.1 standards and other standards and agency practices referenced in Appendices A and B, where appropriate;

6. Streamline administrative processes for approving right-of-way maintenance practices; recognizing that maintenance is implicit in the original approval and that failure to maintain adequate management of the rights-of-way creates adverse natural resource impacts (wildfire and erosion), as well as jeopardizing electric reliability;
7. Promote local ecotypes in re-vegetation projects; enhance site planting with native plant species in management projects; protect native rare species populations affected by rights-of-way establishment, construction, or maintenance; manage rights-of-way areas to maintain wildlife habitat and protect threatened and endangered species habitat; reduce the introduction and control the spread of non-native invasive species or noxious weeds in the rights-of-way and adjacent lands; and develop mutually acceptable corridor vegetative management plans;
8. Encourage public outreach to educate the public in general about the use and acceptance of IVM on rights-of-way;
9. Facilitate prompt evaluation and suppression of dangerous rights-of-way conditions by the rights-of-way holder and Federal land management agencies;
10. Facilitate prompt stabilization of damaged resources within the rights-of-way and ensure that local land management plans, agency procedures, and rights-of-way specific terms and conditions fully reflect and address the use of IVM to manage vegetation near electric transmission and distribution lines and other facilities; and
11. Incorporate IVM and BMPs, where appropriate, into the terms and conditions of the authorization, grant, or permits to ensure sound management of natural ecosystems and the protection of natural resources.

Cooperation among Federal agencies, utility companies, landowners, public interest groups, and other stakeholders can promote sound management of natural ecosystems, protect natural resources, and facilitate IVM to minimize catastrophic blackouts caused by vegetation within the rights-of-way. Nothing in this MOU obligates any of the signatories to engage in any activities inconsistent with their respective missions, roles, and responsibilities.

## **Background**

Thousands of miles of distribution and transmission lines and other electric utility facilities occupy lands managed by Federal land management agencies. Vegetation must be managed around these distribution and transmission facilities to provide safe corridors for the generation and delivery of power.

Recognizing the importance of reliable electric service in the Energy Policy Act of 2005 (P.L. 109-58, enacted August 8, 2005, section 1211), Congress made provisions for electric system reliability standards, including vegetation management. Furthermore, Congress specified that Federal land management agencies responsible for approving rights-of-way for electric

transmission or distribution facilities located on Federal lands within the U.S. must expedite any approvals necessary to allow the owners or operators of such facilities to comply with reliability standards that pertain to vegetation management, electric service restoration, or resolution of situations that imminently endanger the reliability or safety of the facilities.

The Utility Vegetation Management and Bulk Electric Reliability Report from the Federal Energy Regulatory Commission, September 7, 2004, recognized the importance of vegetative management for the safety and reliability of electric transmission. Executive Order 13212, 66 F.R. 28357 (May 18, 2001), directs executive departments and agencies to take appropriate actions, to the extent consistent with applicable laws, to expedite projects or review of permits in order to improve the production, transmission, and conservation of energy while maintaining safety, public health, and environmental protection.

Federal agencies develop their own vegetation management activities consistent with their authorizing statutes. Vegetation interference with transmission and distribution power lines is one of the most common causes of electrical outages throughout the United States. Electric power outages may occur when trees or tree limbs grow, fall, or make contact with electric overhead power lines. Outages also occur when overhead lines stretch or sag onto trees due to increased load or changes in ambient conditions, e.g., high air temperature or high wind speed. Since 1996, the presence of vegetation within electrical rights-of-ways has been implicated in initiating three large-scale electric grid failures in the United States and Canada, including the massive August 14, 2003, blackout that affected 50,000,000 people.

Vegetation in contact with power lines can start fires. Arcing can occur when any part of a bare high-voltage line gets too close to a tree or limb. Properly maintained vegetation on rights-of-way can act as effective firebreaks for the control and suppression of wildfire. Maintenance of rights-of-way vegetation reduces risk to the wildland-urban interface and fulfills key point #3 of the National Fire Plan

### **Roles and Responsibilities**

The parties to this MOU mutually agree to promote the following roles and responsibilities to the extent consistent with the respective missions, roles, and responsibilities of each party.

**Training:** Encourage opportunities for training and technical assistance to Federal agencies, states, tribes, local governments, maintenance crews, utility staff, and landowners seeking to improve vegetation management, including IVM, in rights-of-way occupied by power lines. Promote development of maintenance training and emergency procedures to facilitate the recognition of and rectify unsafe vegetation/power line conditions.

**Public Outreach:** Encourage efforts to educate the public, organizations, and rights-of-way holders of the importance and value of utilizing IVM in managing vegetation on or adjacent to rights-of-way for power lines located on Federal lands.

**Administrative Procedures:** Identify mutual management concerns and needs of each Federal agency and rights-of-way holders. Review and analyze vegetation management plans, select

BMPs/IVM, and prepare administrative procedures to facilitate implementation of accepted BMPs/IVM.

**Application Processing:** Identify, reinforce, and implement procedural steps in the planning and rights-of-way authorization process that will expedite normal maintenance of rights-of-way, to the extent permitted by law and regulations. The Federal land management agencies may modify their procedures to require all rights-of-way applications to include generally accepted IVM practices. The Federal land management agencies may identify the desired future condition of rights-of-way resources in coordination with rights-of-way authorization holders.

**Integrated Vegetation Management - Best Management Practices:** Promote IVM practices and incorporate BMPs into the rights-of-way authorizations used by the utilities managing vegetation on rights-of-way. Parties to this MOU consult resources in Appendices A and B in determining appropriate IVM practices and BMPs. Integrated vegetation management is a system of controlling undesirable vegetation in which (1) undesirable vegetation within an ecosystem is identified and action thresholds are considered, and (2) all possible control options are evaluated and selected control(s) are implemented. Control options, which include biological, chemical, cultural, manual, and mechanical methods, are used to prevent or remedy unacceptable, unreliable, or unsafe conditions. Choice of control option(s) is based on effectiveness, environmental impact, site characteristics, worker/public health and safety, security, and economics. The goal of an IVM system is to manage vegetation and the environment to balance benefits of control, costs, public health, environmental quality, and regulatory compliance.

**Consistency:** Work with Federal land management agencies to adopt consistent application processing and rights-of-way management practices in concert with agencies' missions.

**Maintenance Planning:** Establish a mutually agreeable decision date when an agency does not have a customer service standard. Recognizing a need for a timely response to the permit holder, the Federal land management agencies may modify their procedures to require rights-of-way holders to work with the agencies to plan, schedule, and implement rights-of-way maintenance activities that include IVM activities. The Federal land management agencies may modify their procedures to require rights-of-way holders who want to change approved rights-of-way operation and maintenance plans to submit the request for change and the appropriate supporting documentation far enough in advance of the anticipated vegetative maintenance activities to allow the agencies to analyze the information and render decisions in conformance with agency policy and terms and conditions of the permit or authorization. Appropriate documentation could include National Environmental Policy Act analysis, Pesticide Use Proposals, and other data required by the agencies for analysis of the proposal and for rendering any required decisions.

**Agency Notification of Maintenance Activities:** Encourage cooperation and facilitate successful IVM programs by timely information and communication about maintenance plans and activities, both routine and emergency. When required in rights-of-way authorization's terms, conditions, or stipulations or an approved maintenance plan, a rights-of-way holder is obligated to notify the relevant Federal land management agency of proposed or emergency

maintenance activities in accordance with such authorization or plan. When not specified in either a rights-of-way authorization or plan, the parties to this MOU encourage rights-of-way holders to notify the relevant Federal land management agency of any maintenance activities as soon as possible since earlier notification helps to facilitate timely review and approval.

**Cooperation:** Coordinate utility vegetation management plans with the appropriate Federal agencies and incorporate information on invasive species, threatened and endangered species, and other agency concerns.

**Communication:** Encourage the rights-of-way holders to frequently communicate with Federal land management agencies regarding the management of their authorized rights-of-way. Frequent communication is an important component to facilitate the effective implementation of IVM practices among the Federal, State, and local governments, industry, landowners, and rights-of-way holders and to prevent last-minute crises.

**Agency Contacts:** Provide to all signatories relevant contact information of the person with the principal responsibility for implementing this MOU.

### **Authorities**

The Bureau of Land Management is authorized to enter into this MOU under section 307 of the Federal Land Policy and Management Act, as amended (43 U.S.C. 1737), and the Public Rangeland Improvement Act (43 U.S.C. 1901).

The EPA is authorized to enter into this MOU under section 6604(b) of the Pollution Prevention Act (42 U.S.C. § 13103(b)).

The Forest Service is authorized to enter into this MOU under cooperative agreements between the Secretary of Agriculture and public or private agencies, organizations, institutions, and persons covering Forest Service programs; authority; funding (16 U.S.C. 565a-1).

The Fish and Wildlife Service is authorized to enter into this MOU under the National Wildlife Refuge System Administration Act of 1966, as amended (16 U.S.C. 668dd-ee), and 50 CFR 29.21-4 and 29.21-8 for rights-of-way.

The National Park Service is directed to manage all park lands to protect and preserve natural and cultural resources, pursuant to the National Park Service Organic Act, found at 16 U.S.C. § 1, and subsequent amendments.

### **Implementation, Amendments, and Termination**

This MOU will be reviewed on an annual basis by all signatories and may be amended by the mutual consent of all parties. Changes require written modification, signed and dated by all parties, prior to the effective date.

This MOU will become effective upon the signature of the last approving official of the respective agencies. This MOU will remain in effect for a period of 5 years from the date of the last signature or until terminated by a 30-day advance written notice by any party. The termination by one agency does not automatically void the agreement among the remaining agencies. Other utilities and Federal land management agencies may join in this MOU by signature if they so choose without amending this agreement.

### **Non-Fund Obligating Document**

Each Party will directly fund its own participation under the agreement. All commitments made in this MOU are subject to the availability of appropriated funds and each agency's budget priorities. Nothing in this agreement may be construed to obligate any agency or the United States to any current or future expenditure of resources. This MOU does not authorize or obligate the parties to spend funds or enter into any contract, assistance agreement, interagency agreement, or other financial obligation, even though the funds may be available. This instrument is neither a fiscal nor a funds obligation document. Reimbursement or contribution of funds among the parties will be handled in accordance with applicable laws and regulations.

This MOU does not alter or supplement the agencies' cost recovery procedures. Cost recovery should occur, as appropriate, using existing laws, regulations, and procedures. The agencies agree to coordinate informally on cost recovery and to consider implementation of an interagency collection agreement should formal coordination be requested by an agency.

### **Endorsement**

Federal agencies do not endorse the purchase or sale of any products or services provided by private organizations. The MOU signatories should not make any statements, on the basis of this MOU, that imply that a Federal agency endorses the purchase or use of their products or services. This includes any BMPs or IVM practices mentioned above in the paragraph entitled "Integrated Vegetation Management" and below in Appendices A and B.

### **Limitations**

This MOU is not intended to and does not create any right or benefit, substantive or procedural, enforceable by law or equity against the Federal land management agencies or EPA, their officers, or employees, or any other person. This MOU does not impose any binding obligations on any person.

This MOU is intended only to improve the working relationships of the agencies in connection with expeditious decisions with regard to linear rights-of-way authorizations for energy transmission projects and is neither intended to nor does it create any right, benefit, or trust responsibility, substantive or procedural, enforceable by law or equity by a any person or party against the United States, its agencies, its officers, or any other person.

This MOU is to be construed in a manner consistent with all applicable laws and regulations.

This MOU neither expands nor is in derogation of those powers and authorities vested in the agencies by applicable law, statutes, or regulations.

The agencies intend to implement the terms of this MOU subject to the above limitations. All provisions in this MOU are not intended to foreclose options or restrict agency authorization; however, the provisions are subject to available resources.

The agencies will comply with the Federal Advisory Committee Act to the extent it applies. Any information furnished to the agencies under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552) unless deemed confidential or exempt by agency policy. This instrument in no way restricts the agencies from participating in similar activities with other public or private agencies, organizations, and individuals.

### **Authorized Representatives**

The parties to this MOU acknowledge that each of the signatories is authorized to act on behalf of their respective organizations regarding matters related to this MOU.

IN WITNESS WHEREOF, the parties hereto have executed this MOU as of the last written date below.

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Thomas R. Kuhn, President                      Date  
The Edison Electric Institute

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Dale Bosworth, Chief                      Date  
USDA Forest Service

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Kathleen Clarke, Director                      Date  
Bureau of Land Management

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H. Dale Hall, Director                      Date  
U.S. Fish and Wildlife Service

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Fran P. Mainella, Director                      Date  
National Park Service

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Susan B. Hazen                      Date  
Principal Deputy Acting Assistant Administrator  
EPA, Office of Prevention, Pesticides,  
and Toxic Substances

**Appendix A**  
**Key Standards Relating to Electric System Reliability and Safety**

**American National Standards Institute (ANSI) Standards A300 and Z133.1.** American National Standards Institute, ANSI A300 – 2001, Tree Care Operations – Tree, Shrub and Other Woody Plant Maintenance – Standard Practices (revision and redesignation of ANSI A300-1995) (Includes Supplements). American National Standards Institute, 1819 L Street, NW, 6th floor, Washington, DC 20036. Tel: 202.293.8020 <http://www.ansi.com>

**American National Standards Institute, Inc., ANSI Z133.1-1994.** American National Standard for Tree Care Operations--Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush-Safety Requirements.

**Institute of Electrical and Electronics Engineers (IEEE) Standard 516-2003.** Guide for Maintenance Methods on Energized Power Lines, Institute of Electrical and Electronics Engineers, New York, NY, 20003. ISBN: 0-7381-3569-0.

- Provides minimum vegetation-to-conductor clearances to maintain electrical integrity, as specified in Section 4.2.4, Minimum Air Insulation Distances Without Tools in the Air Gap, or its successor:

Line Nominal Voltage	Minimum Vegetation-to-Conductor Clearance to Maintain Electrical Integrity *		
	(kV)	(ft)	(m)
	<b>765</b>	<b>20.4</b>	<b>6.2</b>
	<b>500</b>	<b>14.7</b>	<b>4.5</b>
	<b>345</b>	<b>9.4</b>	<b>2.9</b>
	<b>230</b>	<b>5.1</b>	<b>1.6</b>
	<b>161</b>	<b>3.4</b>	<b>1.1</b>
	<b>138</b>	<b>2.9</b>	<b>0.9</b>
	<b>88-115</b>	<b>2.5</b>	<b>0.8</b>
	<b>69</b>	<b>1.3</b>	<b>0.4</b>

These distances shall be used unless the transmission owner can demonstrate it knows the transient over voltage factors for its system, in which case the values from Table 7 may be used. Correction factors must be applied for altitudes above 900 m.

**North American Electric Reliability Council (NERC) Reliability Standards**

- NERC is a nonprofit New Jersey corporation whose members are ten regional reliability councils. The members of these councils come from all segments of the electric industry: investor-owned utilities; Federal power agencies; rural electric cooperatives; state, municipal, and provincial utilities; independent power producers; power marketers;

and end-use customers. These entities account for virtually all the electricity supplied and used in the United States, Canada, and a portion of Baja California Norte, Mexico.

- NERC's function is to maintain and improve the reliability of the North American integrated electric transmission system. This includes preventing outages from vegetation located on transmission rights-of-way (ROW), minimizing outages from vegetation located adjacent to ROWs, maintaining clearances between transmission lines and vegetation on and along transmission ROWs, and reporting vegetation-related outages of the transmission systems to the respective Regional Reliability Organizations and NERC.
- Under section 1211 of the Energy Policy Act of 2005, NERC reliability standards will become binding and enforceable on the Nation's utilities, with oversight by the Federal Energy Regulatory Commission.

### **National Electric Safety Code (NESC) 1977®**

- Clapp, Allen L. NESC handbook: development and application of the American national standard, National Electrical Safety Code Grounding Rules, General Rules, and parts 1, 2, and 3 by Allen L. Clapp. 1984 ed. Institute of Electrical and Electronics Engineers, c1984, New York, NY (345 E. 47th St., New York 10017) 430 p.: ill.; 20 cm. ISBN: 0471807834.
- The NESC is the national code covering basic provisions for safeguarding persons from hazards resulting from installation, operation, and maintenance of conductors and equipment in electric supply stations, overhead, and underground electric supply and communication lines.
- It also contains work rules for construction, maintenance, and operations of electric supply and communication lines and equipment.

### **Occupational Safety and Health Administration (OSHA) Standard 29 C.F.R. 1910.269**

- OSHA's section 1910.269 standard applies to line-clearance, tree-trimming operations performed by qualified employees (those who are knowledgeable in the construction and operation of electric power generation, transmission, or distribution equipment involved, along with the associated hazards). These employees typically perform tree-trimming duties as an incidental part of their normal work activities.

### **Uniform Fire Code (UFC)™, 2003 Edition**

- **NFPA 1, Uniform Fire Code (UFC)™, 2003 Edition.** National Fire Protection Association, 1 Batterymarch park, Quincy, MA 02269.
- This code covers hazards from outside fires in vegetation, trash, building debris, and other materials.

**Urban-Wildland Interface Code (UIC), 2003 International Edition.** 5203 Leesburg Pike, Suite 600; Falls Church, VA 22041 [P] 1-888-ICC-SAFE (422-7233); [F] (703) 379-1546.

- The UIC establishes methods and timetables for controlling, changing, and modifying areas on property, in particular at the interface between developed and undeveloped areas.
- Plan elements include removal of slash, snags, and vegetation that come in contact with electrical lines. Additionally, ground or ladder fuels and dead trees may be removed or thinned.

## Appendix B References

**Bureau of Land Management** – <http://www.blm.gov/weeds>

**Edison Electric Institute** – <http://www.eei.org> website contains a compendium of references on *Vegetation Management for Right of Ways and Transmission Lines*

**Environmental Protection Agency:** - <http://epa.gov/pesticides>

**National Pesticide Information Center (NPIC):** <http://npic.orst.edu/>

**Pesticide Environmental Stewardship Program (PESP)** - <http://www.epa.gov/oppbppd1/PESP/index.htm>

**Fish and Wildlife Service** - <http://www.fws.gov>

**Forest Service** “Guide to Noxious Weed Prevention Practices”  
<http://www.fs.fed.us/rangelands/ecology/invasives>

**National Park Service** - NPS Management Policies, Chapter 4:  
<http://data2.itc.nps.gov/npspolicy/index.cfm>

NPS 77-7 Natural Resource Guidelines (1981): Chapter 2 page 238. "Roles and Responsibilities" the "Superintendent should ensure that the park IPM coordinator participates in all management decisions that may directly or indirectly influence pest management. Superintendents must ensure that park IPM Coordinators review and obtain required reviews and approvals for all pesticide projects performed within the park, including projects performed by non-NPS employees such as lessees and contractors . . . ."

## Appendix C Glossary and Acronyms

ANSI	American National Standards Institute
BMP	Best Management Practices: Procedures that have been determined by subject matter experts to be the most effective, low risk, economical and environmentally appropriate procedures for a specific situation. For example, EPA’s water regulations define BMP’s as “Methods, measures, or practices selected by an agency [business, or other entity] to meet its non-point source control needs. BMPs include but are not limited to structural and nonstructural controls, operation, and maintenance procedures. BMP’s can be applied before, during and after pollution producing activities to reduce or eliminate the introduction of pollutants into receiving waters.” (40 CFR - 130.2 [m]).
CFR	Code of Federal Regulations
EEI	Edison Electric Institute: A national association of U.S. shareholder-owned electric utilities and industry affiliates and associates worldwide
EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
Fed. Reg. or F.R.	Federal Register
IEEE	Institute of Electrical and Electronics Engineers
IPM	Integrated Pest Management
IVM	Integrated Vegetation Management: an ecosystem-based strategy for controlling unwanted vegetation using the most appropriate, environmentally sound, and cost effective combination of biological, chemical, cultural, manual, or mechanical methods. (Section Mutually Agreed Roles and Responsibilities provide a definition of IVM.)
Invasive weeds	(or alien species, aquatic nuisance species, exotic species, foreign species, introduced species, non-native species): a species that enters an ecosystem beyond its natural range and causes economic or environmental harm.
MOU	Memorandum of Understanding
NERC	North American Electric Reliability Organization
NESC	National Electric Safety Code®
Noxious weeds	Designated by Federal or State law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or non-native, new or not common to the U.S.
NPS	National Park Service
OSHA	Occupational Safety and Health Administration
ROW	Rights-of-way: the strip of land designated by an authorization or permit for use by a specific purpose.
ROW authorization/ permit	The legal document allowing a utility permission to pass over, under or through Federal land without conveying any interest in the land.
UFC	Uniform Fire Code
UIC	Urban-Wildland Interface Code™

